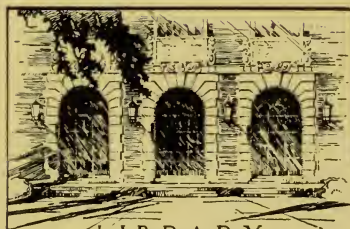




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Legislative Document No. 7.

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SEVENTIETH ANNUAL REPORT

—OF THE—

EASTERN KENTUCKY  
ASYLUM FOR THE INSANE

FOR THE YEAR ENDING SEPTEMBER 30, 1894.

TO HIS EXCELLENCY,

GOV. JOHN YOUNG BROWN.

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FRANKFORT, KY.:

PRINTED BY THE CAPITAL PRINTING CO.

1894.





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## OFFICERS.

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### Board of Commissioners.

MAT. WALTON, *President*,  
J. D. HUNT,  
JOHN T. SHELBY,  
GEO. H. HEADLEY,  
J. W. WHITNEY, M. D.,  
S. C. LYNE,  
C. F. McMEEKIN,  
A. O. HODGES,  
J. HULL DAVIDSON.

### Secretary.

A. W. MARSHALL.

### Treasurer.

GEORGE S. SHANKLIN.

## RESIDENT OFFICERS.

### Medical Superintendent.

F. H. CLARKE, M. D.

### Assistant Physicians,

H. S. ATKINS, M. D.,  
H. H. WALLACE, M. D.,  
M. H. YEAMAN, M. D.

### Steward.

W. C. LYNE.

### Matron.

MRS. M. RICHARDSON.

### Receiver.

JOHN GRANT.

### Supervisors.

S. RICHARDSON,  
MISS MARY ELDER.

1102249





## REPORT OF THE BOARD OF COMMISSIONERS.

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*To His Excellency, JOHN YOUNG BROWN,*

*Governor of Kentucky:*

The Board of Commissioners of the Eastern Kentucky Asylum for the Insane beg leave to present the annual report for the year ending September 30, 1894.

We refer to the accompanying reports of the Medical Superintendent and Treasurer as showing the general condition of the Institution, the amount of its income and expenditures, the source of its income, and for what purposes the expenditures have been made, and the number of inmates received and discharged during the year, and the number in the Asylum at the end of the year.

The Legislature, at its last session, appropriated thirty thousand dollars (\$30,000), to be applied to the erection of new buildings for the accommodation of an increased number of male and female patients. Notwithstanding no part of this appropriation has been paid to the Asylum, the additional buildings contemplated by the act have been commenced and are now approaching completion. Promptly after the passage of the act making the appropriation, the Board determined on the plans of improvement and obtained satisfactory bids for the work; and notwithstanding the subsequently ascertained fact that the payment of the appropriation would be delayed, the Board, in view of all the conditions, deemed it best to proceed with the work at once, having made what they regarded favorable terms for the advance of means by the bank which is the depository of the funds of the Asylum.

The plans of improvement adopted, contemplates first a small annex to the Female Department, and further to provide for the vacating by the resident officers of those parts of the main building, which have been used for the business offices and

apartments of the officers, including the parts of the building used for the residence of the Superintendent's family, and to prepare and devote to the use of patients these vacated parts of the building. This necessitated the construction of a residence building for the Superintendent's family and an administration building for the offices and sleeping apartments for the other resident officers. The latter also includes a large hall to be used as a place of amusement and other meetings of the patients. This plan of improvement was regarded as cheapest and best, because it furnishes accommodation for a large number of patients at less outlay, and provides for quite a number of male and female patients in excess of the requirements of the act, and also contributes greatly to the general convenience of the Institution.

It is hoped that the new accommodations to be provided by the use of the appropriations to this and the other Asylums will, for a time at least, do much to relieve the crowded condition of the Institutions.

As pointed out in the Treasurer's report, the large apparent deficit at the end of the late fiscal year is due almost wholly to the fact that the requisition on the Auditor for the quarter ending September 30, 1894, amounting to \$27,491.25, was still unpaid. In this connection we would call your Excellency's attention to the provision of the late act of Assembly, under which it is held that the quarterly appropriations for the Asylums heretofore paid in advance are not now payable till the end of the quarter. We venture the belief that the change was inadvertently made, and unless amended will result in considerable inconvenience and loss to the Institutions.

During the last summer some obstruction occurred to the sewerage of the Institution. The Asylum has heretofore depended upon an underground channel as the main outlet for the sewerage of the Institution. This in some manner became obstructed during the last summer. The Board, under the advice of an engineer, made some alterations, which it is hoped will be permanently effectual in relieving the difficulty. If it shall not so prove, a proper consideration for the health and comfort of the inmates of the Asylum may require the expenditure of a considerable sum to accomplish the necessary relief.

The Medical Superintendent has urged upon the Board from time to time that a plan be adopted for lighting the buildings by electricity. The Board agrees with the Superintendent in regarding this as a very desirable improvement, but inasmuch as the Asylum is still in debt, the Board has not thus far felt justified in undertaking that improvement. They hope, however, that the improvement may be accomplished at an early date.

We refer to the reports of the Superintendent and Treasurer for a more detailed statement of the affairs of the Asylum. We commend the Superintendent and other officers for the fidelity and success with which they have conducted the affairs of the Institution.

Respectfully submitted,

MAT WALTON, *President*,

J. D. HUNT,

JOHN T. SHELBY,

GEO. H. HEADLEY,

J. W. WHITNEY,

S. C. LYNE,

C. F. McMEEKIN,

A. O. HODGES,

J. HULL DAVIDSON.

## SUPERINTENDENT'S REPORT.

EASTERN KENTUCKY ASYLUM FOR THE INSANE, }  
LEXINGTON, KY., November 1, 1894. }

*To His Excellency, JOHN YOUNG BROWN,*

*Governor of Kentucky:*

SIR: As provided in section 222, chapter 16 of Kentucky Statutes, I submit the report of the Superintendent of this Asylum for the year ending September 30, 1894.

The changes in the population of the Institution in the past year were as follows:

Patients remaining October 1, 1893 . . . . .	762
Admitted during the year. . . . .	167
Whole number cared for . . . . .	929
Discharged and died . . . . .	153
Remaining September 30, 1894 . . . . .	776
Daily average . . . . .	771.7

A comparison of this statement with reports of former years shows the number of patients admitted last year was smaller than in any year since the year ending September 30, 1886. In that year only one hundred and thirty nine were received; in 1887, one hundred and seventy-two; in 1888, one hundred and seventy-four; in 1889, two hundred and sixteen; in 1892, one hundred and ninety-six, and in 1893, one hundred and ninety-two, while last year only one hundred and sixty-seven were admitted.

It will be seen, that while the number of admissions has varied year by year, the tendency all along has been towards an increase, and the smaller number received last year was due entirely to want of room. As in former years, it was impossible last year to receive all who applied for admission. No record was kept of the number refused admission last year, but it was larger than in any year since 1886.

The admissions, discharges, and results of treatment, are



shown in the tables following this report. The latter—results of treatment—depend largely on the character of cases admitted, and the tables are intended to show principally this.

While the same embarrassing conditions mentioned in reports of former years, especially the overcrowded wards, have existed in the past year, we believe the results of medical work were as satisfactory as could reasonably have been expected. The proportion of patients discharged, recovered and improved, was about as usual, and nearly the same as in the past three years, and the death rate was a little lower than usual. The general health of the Institution was unusually good throughout the year, except during the latter part of summer and early autumn when an epidemic of typhoid fever occurred. There were twelve cases among officers, employes and patients; most of them were of a mild type, only one case being fatal. We were not able to determine the source of the disease. The water supply for the whole Institution, for drinking, is obtained by collecting water from the roofs of the buildings into cisterns, and these cisterns have since been cleaned and replastered. The sewers and drains have also been overhauled and put into better condition, and another appearance of the disease is not looked for.

Among the deaths recorded, two were suicides, one man and one woman, both by hanging. We have dormitory wards for suicidal patients, provided with special night attendants, but the overcrowded wards make it impossible to properly classify our patients, and much uneasiness and fear of accidents has been felt.

The Treasurer's report shows the Institution to be in good financial condition except for the amount due from the State Treasury. A deficit of \$27,761.66 is shown, but enough is due the Asylum from the State Treasury, and from pay patients, which will probably be paid in a few weeks, to more than meet this deficit. The report of the Treasurer for the year ending September 30, 1893, showed a deficit of \$4,832.14, but if the amount due from the State had been paid when due, the new year would have been begun practically free of debt.

Several important changes in the statutes governing the State Asylums were made by the last General Assembly. The names

of the institutions were changed from "Lunatic Asylums" to "Asylums for the Insane," another Assistant Physician was authorized in each Asylum, and the annual appropriation increased from one hundred and thirty-five to one hundred and fifty dollars for each patient. The change of names was in the direction of a tendency throughout the United States. In nearly all the States the words "lunatic" and "asylum" has been dropped from the names of State institutions and, "hospital" and "insane" substituted. In New York they are called simply "State Hospitals." I much prefer the name "hospital" to "asylum," and recommended it to the Legislature, but the name adopted is preferable to the old one.

The increase of the annual appropriation was urgently needed, and the action of the General Assembly in making it will be appreciated by all interested in and familiar with the needs of the Institutions. Some general improvements have already been made in this Asylum, but it was thought best to pay off the small debt on the Institution before making more extensive changes and improvements.

The Legislature provided for another great and most urgent need in making appropriations for enlarging all three of the State Asylums. The amount appropriated for this Asylum was \$30,000, and although advised the money would probably not be paid by the State Treasurer, the Board of Commissioners decided to borrow the necessary funds and proceed at once to build. In view of the crowded Asylums and the great pressure to receive patients from all over the State, this course was certainly humane and justifiable, and it was further believed that the low price of building material and labor, made it a good and economical business policy.

The plans adopted by the Board provided for the erection of an administration or office building, a residence for the superintendent, and a small annex to the woman's department. These buildings are all now being built, and will be occupied and afford much needed relief during the present year. A full description and report of expenditures will be made in the next report as the statute making the appropriation provides.

The new act of General Assembly for the government of the Asylums provides for the payment of the appropriation for the



support of the Institutions, at the end of each quarter, instead of in advance, as under the old law. This change will cause serious inconvenience, and the next Assembly will be urged to change it.

During the year, Dr. E. M. Green, who had served efficiently as Second Assistant Physician in this Asylum for more than two years, was transferred to the Central Asylum, and his place filled by appointment of Dr. H. H. Wallace, of the Western Asylum. While Dr. Green's departure was greatly regretted, his successor, Dr. Wallace, has been a faithful and efficient officer, and has discharged his duties to the entire satisfaction of the Superintendent and Board of Commissioners. No other changes have occurred in the staff of the Institution, and I desire again to thank the officers and the Board for kindness and assistance. The successful management of every Asylum, and especially of a large Institution like this, depends largely upon the fidelity and efficiency of its assistants, and no Superintendent can hope for good results in the management of the Institution and the care of its unfortunate inmates without their support and assistance.

In this connection, your Excellency's attention is directed to the good showing made by the Steward, whose report to the Board of Commissioners is added, as the best evidence of his good management.

The subordinate officers, attendants and other employes should not be overlooked; they should be commended for faithful service.

Respectfully,

F. H. CLARKE.

# TABLES OF STATISTICS.

## Movement of Population and Results of Treatment.

	White Men. . .	White Women	Colored Men . .	Colored Women	Total . . . . .
Remaining October 1, 1893 . . . . .	355	306	48	52	761
Admitted during the year . . . . .	77	72	14	3	166
Whole number under treatment . . . . .	432	378	62	55	927
Discharged and died . . . . .	71	63	12	6	152
Remaining September 30, 1894. . . . .	361	315	50	49	775
Discharged as recovered . . . . .	21	20	4	3	48
Discharged improved . . . . .	13	11	2	1	27
Discharged unimproved . . . . .	11	8	..	..	19
Died. . . . .	23	24	5	2	54
Eloped. . . . .	3	..	1	..	4

## Ages of Patients Admitted During the Year.

Under fifteen years . . . . .	1	1	1	..	3
Fifteen to twenty years . . . . .	3	3	1	..	7
Twenty to twenty-five years . . . . .	12	14	2	..	28
Twenty-five to thirty years . . . . .	12	6	..	..	18
Thirty to thirty-five years . . . . .	8	2	1	1	12
Thirty-five to forty years . . . . .	9	8	..	..	17
Forty to forty-five years . . . . .	8	10	2	..	20
Forty-five to fifty years . . . . .	7	14	2	..	23
Fifty to fifty-five years . . . . .	7	6	..	1	14
Fifty-five to sixty years . . . . .	3	3	1	..	7
Sixty to sixty-five years . . . . .	3	1	..	1	5
Sixty-five to seventy years . . . . .	1	3	..	1	5
Seventy to seventy-five years . . . . .	2	1	..	..	3
Over seventy-five years . . . . .	1	..	..	..	1
Age unknown . . . . .	..	..	2	2	4

## Form of Disease in Those Admitted During the Year.

Acute mania . . . . .	27	21	8	2	58
Recurrent mania . . . . .	5	5	..	..	10
Hysterical mania . . . . .	..	2	..	..	2
Chronic mania . . . . .	10	15	2	..	27
Acute melancholia . . . . .	13	18	1	1	33
Chronic melancholia . . . . .	2	4	..	..	6
Acute dementia . . . . .	1	1	..	..	2
Chronic dementia . . . . .	4	2	1	..	7
Senile dementia . . . . .	2	1	..	..	3
Alcoholic dementia . . . . .	1	..	..	..	1
Paretic dementia . . . . .	4	..	..	..	4
Epilepsy . . . . .	1	..	1	1	3
Cerebral softening . . . . .	1	..	..	..	1
Cerebro-spinal sclerosis . . . . .	1	..	..	..	1
Alcohol and opium habit . . . . .	4	1	..	..	5

## Duration of Insanity in Patients Admitted During the Year.

	White Men.	White Women.	Colored Men.	Colored Women.	Total.
Less than one month . . . . .	13	6	2	1	22
One to two months . . . . .	3	4	..	..	7
Two to three months . . . . .	4	2	..	..	6
Three to four months . . . . .	3	3	1	1	8
Four to five months . . . . .	5	3	1	..	9
Five to six months . . . . .	2	3	..	..	5
Six to eight months . . . . .	5	5	2	..	12
Eight to ten months . . . . .	..	..	..	..	..
Ten to twelve months . . . . .	..	..	..	..	..
Twelve to eighteen months . . . . .	2	3	1	..	6
Eighteen months to two years . . . . .	1	1	..	..	2
Two to three years . . . . .	4	3	..	..	7
Three to four years . . . . .	1	2	1	..	4
Four to five years . . . . .	1	1	..	..	2
Over five years . . . . .	8	9	..	..	17
Age unknown . . . . .	26	27	6	1	60

## Civil Condition of Patients Admitted During the Year.

Married . . . . .	40	31	5	2	78
Single . . . . .	29	29	3	..	61
Widow . . . . .	..	10	..	..	10
Widower . . . . .	1	..	..	..	1
Divorced . . . . .	1	..	..	..	1
Civil condition unknown . . . . .	6	2	6	1	15

## Nativity of Patients Admitted During the Year.

Georgia . . . . .	1	..	..	..	1
Indiana . . . . .	1	1	..	..	2
Kentucky . . . . .	59	57	12	3	131
Maryland . . . . .	1	..	..	..	1
Missouri . . . . .	..	1	..	..	1
New York . . . . .	..	1	..	..	1
North Carolina . . . . .	..	1	..	..	1
Ohio . . . . .	2	..	..	..	2
Pennsylvania . . . . .	1	..	..	..	1
Tennessee . . . . .	3	1	..	..	4
Virginia . . . . .	1	..	..	..	1
West Virginia . . . . .	1	..	..	..	1
Germany . . . . .	4	1	..	..	5
Ireland . . . . .	1	1	..	..	2
Nativity unknown . . . . .	2	8	2	..	12

## Occupation of Patients Admitted During the Year.

	White Men . .	White Women .	Colored Men . .	Col'd Women .	Total . . . .
Clerk . . . . .	1	1	.	.	2
Salesmen . . . . .	1	.	.	.	1
Saleswomen . . . . .	.	1	.	.	1
Teacher . . . . .	.	2	.	.	2
Farmer . . . . .	34	.	.	.	34
Farmer's Wife . . . . .	.	26	.	.	26
Cook . . . . .	.	.	.	1	1
Lumberman . . . . .	1	.	.	.	1
Harness Maker . . . . .	1	.	.	.	1
Laborer . . . . .	20	.	8	.	28
Laborer's Wife . . . . .	.	8	.	.	8
Merchant . . . . .	2	.	.	.	2
Merchant's Wife . . . . .	.	2	.	.	2
Washerwoman . . . . .	.	.	.	1	1
Servant . . . . .	.	.	3	2	5
Railroad Conductor . . . . .	1	.	.	.	1
Telegrapher . . . . .	.	1	.	.	1
Dressmaker . . . . .	.	1	.	.	1
Butcher . . . . .	1	.	.	.	1
Gambler . . . . .	1	.	.	.	1
Dentist . . . . .	1	.	.	.	1
Printer . . . . .	1	.	.	.	1
Stock Dealer . . . . .	1	.	.	.	1
Book-keeper . . . . .	1	.	.	.	1
Lawyer . . . . .	3	.	.	.	3
No Occupation . . . . .	5	10	.	.	15
Occupation unknown . . . . .	2	17	2	.	21

## STEWARD'S REPORT.

---

*To the Board of Commissioners of Eastern Kentucky Asylum for the Insane :*

GENTLEMEN: The following report of operations of the farm, garden, and dairy of this Asylum for the year ending September 30, 1894, showing values of supplies furnished, cash receipts and expenses, is respectfully submitted.

The statements are compiled from the monthly reports to the Board, and the amounts, values, prices, etc., are the same as were reported **every month** :

Total value of supplies furnished during the year from farm, garden and dairy . . . . .	\$15,347 35
Total expenses . . . . .	5,938 25
Net income. . . . .	<u>\$9,409 10</u>

This statement shows the net income from the farm and garden to be less than that shown by last annual report. The difference, however, is mainly accounted for by the lower prices charged for farm and garden products.

I submit the following report of hogs bought, sold, and slaughtered during the year, showing the net profit to the Institution :

Hogs on hand September 30, 1893, valued at . . . . .	\$423 50
Paid for hogs during the year . . . . .	1,086 98
Total . . . . .	<u>\$1,510 48</u>
Cash for hogs sold during the year . . . . .	\$1 086 96
Value of hogs slaughtered during the year . . . . .	1,253 08
On hand September 30, 1894, 169 hogs, weighing 16,420 lbs., valued at . .	821 00
Total . . . . .	<u>\$3,160 96</u>
Net profit . . . . .	<u>\$1,650 48</u>

The total profit to the Institution in the past three years from handling hogs as shown by reports of 1892, 1893, and 1894, amounts to. . . . . \$4,148 91

Beef for the Institution has been supplied by purchasing cattle and slaughtering at the Asylum. We have, during the past year, been furnished with an excellent quality of beef at a net cost of \$5.44 per hundred.

Respectfully,

W. C. LYNE, *Steward.*

# REPORT OF TREASURER FOR THE FISCAL YEAR 1893-4.

## RECEIPTS.

From State Treasurer . . . . .	\$77,011 59
From patients . . . . .	5,622 55
Hides, tallow, grease and meat . . . . .	971 45
Live animals, farm and garden . . . . .	1,122 85
Empty barrels, rags, old iron, miscellaneous . . . . .	307 23
From Rev. Barry—Priest for restitution . . . . .	6 00

## DISBURSEMENTS.

Salaries . . . . .	\$6,663 95
Wages . . . . .	23,422 33
Breadstuffs . . . . .	4,778 93
Building and repairs . . . . .	6,383 41
Books, stationery and printing . . . . .	432 94
Board refunded . . . . .	292 19
Clothing . . . . .	7,076 88
Drugs and medicine . . . . .	2,323 97
Dry goods . . . . .	5,308 11
Expenses on live stock . . . . .	791 20
Fruits and vegetables . . . . .	144 33
Fuel . . . . .	6,713 96
Furniture (house and kitchen) . . . . .	3,535 06
Freight and express on general merchandise and supplies . . . . .	216 15
Funeral expenses . . . . .	177 03
Farm expenses . . . . .	2,217 02
Garden expenses . . . . .	126 00
Groceries . . . . .	14,992 02
Ice . . . . .	304 76
Insurance . . . . .	15 00
Lights . . . . .	1,984 92
Laundry . . . . .	593 85
Labor, not included in pay-roll . . . . .	609 75
Milk . . . . .	2,572 21
Meats, fowls, fish and game . . . . .	13,975 60
Postage, telegraph and telephone . . . . .	317 55
Spirituos liquors . . . . .	294 89
Soap . . . . .	785 85
Seeds . . . . .	465 71
Traveling expenses . . . . .	341 10
Vehicles, tools and implements for farm and garden . . . . .	30 75
Amusements . . . . .	30 00
Miscellaneous . . . . .	53 80
Excess of disbursements over receipts . . . . .	22,929 52

Totals . . . . .	\$107,971 19	\$107,971 19
------------------	--------------	--------------

September 30, 1893, deficit . . . . .		\$4,832 14
Excess of disbursements over receipts . . . . .		22,929 52

September 30, 1894, deficit . . . . .		\$27,761 66
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Respectfully submitted,  
GEORGE S. SHANKLIN, *Treasurer.*

N. B.—The requisition upon the Auditor made July 1, 1894, for quarter ending September 30, 1894, amounting to \$27,491.25, has never been paid, nor any part thereof, paid. The deficit reported within \$27,761 66, leaving a deficit of only \$270.41 after last quarter is paid as against deficit of \$4,832.14, September 30, 1893.

Respectfully submitted,  
GEORGE S. SHANKLIN, *Treasurer.*



Legislative Document No. 8.

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PROCEEDINGS

—OF THE—

STATE BOARD OF EQUALIZATION .

—OF—

KENTUCKY.

SESSION 1895.

---

PROPERTY OF THE STATE OF KENTUCKY.

---

FRANKFORT, KY.:

PRINTED BY THE CAPITAL PRINTING COMPANY.

1895.



# OFFICERS.

---

CHAIRMAN :

JOHN S. PHELPS.

SECRETARIES :

ROBERT B. FRANKLIN,  
SILAS OPPENHEIMER,  
JOHN J. JOHNSON.

---

# MEMBERS.

DISTRICT.	NAMES.	POST-OFFICE.	COUNTY.
First District . . . . .	L. C. PRICHARD . . .	Sandy Hook . . .	Elliott.
Second District . . . . .	JOHN S. PHELPS . . .	Lexington . . . .	Fayette.
Third District . . . . .	HANCOCK TAYLOR.	Louisville . . . .	Jefferson.
Fourth District . . . . .	BEN. D. RINGO . . .	Hartford . . . . .	Ohio.
	L. C. NORMAN . . . .	Frankfort . . . . .	



## CHAPTER 1562.

### AN ACT to Establish a State Board of Equalization of Assessments in this Commonwealth.

*Be it enacted by the General Assembly of the Commonwealth of Kentucky:* § 1. That it shall be the duty of the Governor, by the advice and with the consent of the Senate, to appoint one person, having the qualifications of an elector, from each appellate district in this State, and they, together with the Auditor of Public Accounts, who shall be an *ex officio* member without additional compensation, shall constitute a State Board of Equalization of Assessments. The members of this board shall hold their offices for a period of two years, and until their successors are elected and qualified. The term of office of said persons to be appointed as aforesaid shall begin on the first day of November, 1888. A majority of such board shall constitute a quorum to do business.

§ 2. Each member of said board, before entering upon the duties of said office, shall take the oath or affirmation prescribed by the Constitution of the State.

§ 3. At the first meeting of said board, it shall organize by selecting one of its members as chairman and appointing a secretary, who shall take the oath prescribed by the Constitution. Each member of said board shall receive for his services the sum of five dollars per day during its sessions, and ten cents per mile for each mile necessarily traveled in going to and returning from the seat of government, to be computed by the Auditor of Public Accounts, and no other allowance or emolument, directly or indirectly, except the sum of ten dollars annually, which shall be in full for postage, stationery, newspapers and all other incidentals. The pay and mileage allowed to each member of said board, and the pay allowed to its secretaries and employes, shall be certified by the chairman. Said board may employ three secretaries at five dollars per day.

§ 4. Said board shall assemble at the State capital on the 10th

day of February annually, to perform the duties imposed upon it by the provisions of this act; but in case the Auditor has not, by that date, received sufficient returns of assessments and tabulated statements, as provided for in this act, from the various county clerks of this Commonwealth, the said officer may, in his discretion, call the board to meet at some later day. The State Librarian shall furnish such printing, fuel, lights and rooms as may be necessary for the transaction of the business of said board.

§ 5. In all cases of partial return from any county, the Board of Equalization may estimate the valuation in the towns or districts from which returns have not been received, and may equalize the total valuation as in other cases; and in all cases of failure on the part of any county clerk to furnish the proper returns of the assessment of his county to the Auditor prior to or during the meeting of the Board of Equalization in each year, said board may, by order, authorize the Auditor to equalize the assessment of such county when the full returns have been received by him.

§ 6. That the clerks of the various county courts of this Commonwealth are hereby required to make out an annual tabulated statement of all sales of real estate, as shown by the deed books in their respective counties, on suitable blanks, which the Auditor is hereby required to furnish said clerks, and said clerks are required to make and file said tabulated statements on or before the first day in January in each year, town lots being kept separate from other real estate; said tabulated statements shall be for one year immediately preceding the fifteenth day of September, and shall contain a list of all sales of real estate, town lots being kept separate as aforesaid, the price paid, with terms and conditions, the number of acres, and the assessed value of the same for the said year. Said tabulated statements shall only include sales where absolute fee-simple title is given, and if only a part of a tract of land or town lot is sold, shall give a short description of same, and state what proportion the same may be of such tract of land or town lot. The said tabulated statement shall be sworn to by the said clerk before some person competent to take oaths as a full and complete statement of said fact for a period of one year previous to the fifteenth



day of September. Said tabulated list shall be made out and sent to the Auditor of Public Accounts for the use of the State Board of Equalization. For his services in making said tabulated statement the clerk shall be paid a reasonable compensation by the county court of his respective county. If any clerk of any county in this Commonwealth fails to make out and send, by mail or otherwise, to the Auditor of Public Accounts, on or before the first day in February in each year, the tabulated list of sales, as provided in this act, he shall be fined not less than fifty nor more than two hundred dollars, upon indictment in any court of competent jurisdiction in this Commonwealth.

§ 7. The said Board of Equalization shall fix the percentage of assessed value of real property at 69 per centum of cash value, and all counties whose average lists of real property are below such per centum shall be raised to the same, and all those counties whose average lists are above the same shall be lowered to said standard. The Secretary of the State Board of Equalization shall report to the various county judges of this Commonwealth, as soon as possible, the action of the board in regard to their respective counties, whereupon said judges may, in their discretion, each appoint not exceeding five witnesses to appear under oath before said board in reference to the action of the board. The board shall then revise their action or not, as they may think just and proper. Said witnesses must appear in a reasonable time, or they shall lose their right to be heard. The compensation and expenses of said witnesses, if any, shall be paid by their respective county courts.

§ 8. The said Board of Equalization shall also equalize the personal property of every county in this Commonwealth, by adding to or subtracting from the list of personal property, as the case may be, the same per centum as was added to or subtracted from the list of real estate for the same county. And for this purpose, the average aggregate per centum of assessed value to cash value of both lands and town lots shall be used, and, in determining such per centums, fractions less than one-half shall be rejected, and fractions of one-half and over shall be counted as one.

§ 9. In the event that there has not been as many as five sales

of land in any county in any one year next preceding September the fifteenth, then the assessments of real estate and personal property for that county shall remain as fixed by the county board of supervisors, and the same rule shall apply to town lots.

§ 10. Said board shall find the average percentage of assessed value to cash value of lands and town lots in any one county by taking in said tabulated statement the aggregate assessed values of all tracts of land and town lots, town lots being kept separate, and calculating what percentage said aggregate assessed values are of the cash value of the same, time payments being reduced to cash value on the basis of six per centum discount.

§ 11. When the said board shall have completed its equalization of assessments for any one year, the chairman and secretary shall certify to the Auditor the rates finally determined by the said board to be added to or deducted from the listed or assessed valuation of land and town lots and personal property in the several counties, and the amounts assessed by said board, and it shall be the duty of the Auditor, under his seal of office, to report the action of the board to the several sheriffs immediately after the adjournment of said board.

§ 12. A report of the proceedings of said Board of Equalization shall be published annually in pamphlet form, and one thousand copies thereof printed, of which number each member shall be entitled to fifty copies, the Auditor to two hundred, and the remainder thereof shall be distributed by the Secretary of State to the several counties in proportion. Said distribution shall be made by mail or express, immediately upon the receipt of said report from the Public Printer, the cost of such distribution to be paid by the Treasurer of the State out of any money in the Treasury not otherwise appropriated.

§ 13. All rates of taxes as hereinafter provided for shall be extended by the secretaries on the assessed valuation of property as equalized and assessed by the State Board of Equalization. Said secretaries shall extend the rates of addition or deduction ordered by the State Board of Equalization in columns provided for that purpose. The rates per cent. ordered by the State Board of Equalization shall be extended on the

assessed valuation of property as corrected and equalized by the county board. In all cases of extension of valuation, where the equalized valuation shall happen to be fractional, the clerk shall reject all such fractions as may fall below fifty cents; fractions of fifty cents or more shall be extended as one dollar.

§ 14. It shall be the duty of the Auditor to make in each assessor's book a certificate of the rate of deduction or addition determined by the State Board of Equalization in the county to which such books shall pertain. The Auditor shall make out, over his hand and official seal, a certificate of the action of the Board of Equalization, which shall be transmitted to the county clerk, and by him affixed to the assessor's book for the said year, and shall be the warrant of authority to the sheriff or collector for the collection of taxes as therein set forth.

§ 15. This act, with the exception of section 1, which shall take effect from its passage, shall be in force and effect from July 1, 1888.

Approved May 4, 1888.

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## CHAPTER 1903.

AN ACT to amend an act, entitled "An act to establish a State Board of Equalization of Assessments in this Commonwealth," approved May 4, 1888.

*Be it enacted by the General Assembly of the Commonwealth of Kentucky:* § 1. That an act, entitled "An act to establish a State Board of Equalization of Assessments in this Commonwealth," approved May 4, 1888, be, and the same is hereby, amended by inserting after the word "September," in the twenty-second line of section 6, General Statutes, edition of 1888, the following words: "Said statement shall also be signed and sworn to by the county attorney and county judge, and in their affidavits they shall state that they have examined the recorded and unrecorded conveyances filed for said twelve months *preceeding* September the fifteenth last past, and each and every such conveyance (except those based on love and affection), with the consideration therefor, is correctly stated, is shown in said statement, and that the assessed values are cor-

rectly given in said statement. Said board shall have the authority to obtain and use any other evidence as to values, and whether or not the property conveyed has been assessed at a greater per centum of its actual value than in cases where property has not been conveyed."

§ 2. That the figures "69," in the second line of section 7, be stricken out, and the figures "70" inserted in lieu thereof.

§ 3. That section 8 of said act be, and the same is hereby, repealed, and in lieu thereof the following, to be known hereafter as section 8, is hereby enacted, to wit: "The said Board of Equalization shall also equalize the personal property of every county in this Commonwealth by adding to or subtracting from the list of personal property, as the case may be, the same per centum as was added to or subtracted from the list of farm lands for the same county, and for this purpose the average per centum of assessed value to cash value of farm lands shall be used, and, in determining such per centum, fractions less than one-half shall be *rejected*, and fractions of one-half and over shall be counted as one."

Approved May 27, 1890.

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## CONSTITUTION OF THE COMMONWEALTH OF KENTUCKY.

### *Revenue and Taxation.*

SEC. 172. All property, not exempted from taxation by this Constitution, shall be assessed for taxation at its fair cash value, estimated at the price it would bring at a fair voluntary sale; and any officer, or other person authorized to assess values for taxation, who shall commit any willful error in the performance of his duty, shall be deemed guilty of misfeasance, and upon conviction thereof, shall forfeit his office, and be otherwise punished as may be provided by law.



# PROCEEDINGS OF THE BOARD.

1895.

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## ORGANIZATION.

The 10th day of February, the day fixed by law for the annual assembling of the State Board of Equalization, at the State Capital, having this year fallen on Sunday, the Board met in regular session in the Capitol Buildings, at Frankfort, Kentucky, on Monday, February 11, 1895.

The following members were present, viz :

From the First District—L. C. Prichard, of Elliott county.

From the Second District—John S. Phelps, of Fayette county.

From the Fourth District—Ben D. Ringo, of Ohio county.

L. C. Norman, Auditor, and *ex officio* member.

The individual members present took the oath prescribed by law, and there being a quorum for the transaction of business present, the Board proceeded to organize.

John S. Phelps, of the Second District, was elected Chairman by acclamation.

Out of regard for Mr. Hancock Taylor, member of this Board from the Third District, and who was unavoidably detained at his home in Jefferson county, the election of Secretaries, was, by unanimous consent, postponed until Tuesday, the twelfth day of February.

On Tuesday, the 12th day of February, the Board met, with all the members thereof present. Mr. Hancock Taylor, the member from the Third District, took the oath prescribed by law.

The Board then proceeded with the election of Secretaries, with Mr. Ben. D. Ringo acting as Secretary *pro tem*.

For the office of Chief Secretary, Messrs. Charles F. Exum and Robert B. Franklin were placed in nomination, and, the

ballot being taken, and Mr. Franklin having received a majority of the votes, was declared duly elected.

The work of the Board requiring the services of two other Secretaries, Messrs. Silas Oppenheimer and John J. Johnson were placed in nomination, and, there being no further nominations, these gentlemen were, by the unanimous vote of the Board, declared duly elected to fill the positions named.

Thereupon, Messrs. Robert B. Franklin, Silas Oppenheimer and John J. Johnson, the Secretaries-elect, appeared and took the oath prescribed by law.

The Board and its Secretaries then entered actively upon the discharge of their duties.

## EQUALIZATION.

### LANDS.

In the work of equalization of "Farm Lands," the Board not only considered the proportion of "Assessed Valuation" to "Consideration" or "Sale Value," as the same appeared from the "Tabulated Lists of Transfers," under the law required to be furnished by the several county court clerks for the use of the Board, but a table of figures for each county, showing the number of acres, "Assessed Valuation of Lands," and "Equalized Valuation of Lands," for the years 1889-'90-'91-'92-'93- and '94, was prepared, and calculations based upon said figures, and comparisons therewith of the "Assessed Valuations" for the present year were made, and these evidences, together with all other obtainable evidences of value, were critically examined into and given the board's most intelligent consideration before any conclusion as to "fair cash values" was arrived at.

### LOTS.

In the matter of the equalization of "Town Lots," the "Tabulated Lists of Transfers of Town Lots," furnished for the use of the Board from the several separate counties, were considered separately and apart from those evidences affecting judgment of the Board with reference to farm land values; and the Board, in addition to the "Tabulated Lists of Transfers of Town Lots," prepared for each county and had before it a



table of figures showing the "assessed" and "equalized" values of town lots for the years 1889-'90-'91-'92-'93 and '94. With these figures the Board made comparisons of the assessed valuations for the present year, and, in addition thereto, took advantage of all other obtainable evidence as to town lot values in the respective counties that would in any measure assist it in arriving at fair and just conclusions.

## NOTICE TO COUNTY JUDGES.

As the values of "Farm Lands" and "Town Lots" were equalized for the counties, as above indicated, the following form of notice, properly filled out, signed by the Chairman, and attested by the Chief Secretary, was mailed to the county judge of each of the 119 counties of the State:

STATE BOARD OF EQUALIZATION, )  
FRANKFORT, KY., \_\_\_\_\_, 1895. }

*To the County Judge, \_\_\_\_\_ County, Ky.:*

DEAR SIR: The State Board of Equalization has given to the "Tabulated List of Transfers" and "Recapitulation Sheets" from your county, its most thorough examination and intelligent consideration. The result of this work indicates that \_\_\_\_\_ per cent. should be \_\_\_\_\_ the "Assessed Value of Lands and Personal Property Subject to Equalization," and \_\_\_\_\_ per cent. \_\_\_\_\_ the "Assessed Value of Town Lots."

This is the action of this Board for the present, and will be its final action, unless same be changed or modified in the manner by law prescribed.

The law requires that you be informed of this action, and an opportunity given, if desired, that "*not exceeding five witnesses*" appear "*under oath in reference to the action of the Board.*"

\_\_\_\_\_, 1895, is the day fixed for the hearing of witnesses from your county, one of whom should be your assessor.

Please notify the Board by return mail whether or not you will send witnesses.

Very respectfully,

JOHN S. PHELPS, *Chairman.*

Attest:

\_\_\_\_\_, *Chief Secretary.*

## WITNESSES.

In response to the request contained in above notice, quite a number of the county judges wrote expressing their entire satisfaction with the action of the Board, and declined to put their counties to the expense of sending witnesses to Frankfort.

From the 28th day of March until and including the 26th day of April, on the days for which they were notified to appear, the Board heard evidence from the following gentlemen, who appeared as witnesses in behalf of the counties set opposite their names, viz:

*From Barren county*—G. M. Bohannon, W. L. Porter, J. W. Jones and V. H. Baird.

*From Bell county*—N. B. Hays, M. J. Moss, E. Ingram, H. Steele and J. C. Colson.

*From Boone county*—John J. Rucker, Benjamin Stephens, W. L. Riddell, R. A. Brady and J. M. Lassing.

*From Boyd county*—Willis L. Ringo, G. W. Ross, John Lack, W. B. Seaton, and E. E. Eastham.

*From Boyle county*—John J. Craig, W. L. Caldwell and Geo. H. Hocker.

*From Breathitt county*—J. Wise Hagins, T. T. Cope and Wm. J. Arrowood.

*From Breckinridge county*—L. Cushman, R. M. Jolly and V. B. Burton.

*From Bullitt county*—Wm. Simmons and T. J. Barrall.

*From Campbell county*—N. L. Bennett, Chas. L. Harrison, Chas. Youngblut, Julius Plummer and J. S. Youtsey.

*From Carroll county*—R. F. Harrison.

*From Christian county*—C. M. Brown, Chas. O. Prowse, and D. R. Perry.

*From Clark county*—S. R. Hodgkin, Rodney Haggard, Abraham Rennick, James H. Evans and W. T. Górdon.

*From Clay county*—Wm. Parker, G. W. Baker and R. C. Ford.

*From Elliott county*—Silas Oppenheimer.

*From Fayette county*—John Boyd, W. R. Jones, C. B. Williams and R. P. Stoll.

*From Franklin county*—John S. Harrod, Z. T. Tommasson, N. B. Smith and R. B. Franklin.

*From Gallatin county*—J. M. McDanell and Robert Brown.

*From Grant county*—R. H. Elliston, Joseph Glascock, P. J. Rennecker, Tim Needham and U. Harrison.

*From Grayson county*—J. C. Graham, H. W. Stoy and L. Clarke.

*From Greenup county*—G. A. Corum and J. B. Bennett.

*From Hardin county*—J. A. Kinkead and W. H. Gardner.

*From Harlan county*—A. B. Cornett and Jeff. W. Howard.

*From Henderson county*—O. W. Rash and James H. Lockett.

*From Henry county*—John Bruce and W. W. Turner.

*From Hickman county*—J. J. Craig and R. I. Bazzell.

*From Hopkins county*—W. D. Orr, B. F. Ligon and R. C. Tapp.

*From Jefferson county*—Chas. G. Richie, Bennett H. Young and John McAteer.

*From Jessamine county*—R. S. Perry, J. D. Hughes, Charles Hemphill and E. B. Hoover.

*From Larue county*—Murray R. Hubbard.

*From Laurel county*—W. L. Brown, W. A. Pugh, A. L. Read, John Nelson and J. W. Moren.

*From Lawrence county*—John J. Johnson.

*From Lincoln county*—W. E. Varnon and E. D. Kennedy.

*From Livingston county*—J. L. Able, C. O. Lowery and Wm. Grayot.

*From Logan county*—S. R. Crewdson and John S. Rhea.

*From Madison county*—J. T. Berry and N. B. Deatherage.

*From Marion county*—S. B. Thomas and W. L. Cardwell.

*From Mason county*—R. R. Maltby, J. H. Rice and C. W. Williams.

*From McCracken county*—J. C. Tully, W. T. Byrd and W. R. Holland.

*From Meade county*—J. H. Trent, Jr., Noah Greenwell and J. D. Hardin.

*From Menefee county*—H. D. Combs and J. B. Lyons.

*From Mercer county*—T. C. Bell, Joseph Rhodes, W. J. Poteet, C. A. Hardin, Jr., and B. F. Roach.

*From Monroe county*—Geo. S. Spear and James H. Newman.

*From Montgomery county*—R. J. Hunt, Henry Jones and J. W. Burroughs.

*From Nicholas county*—Green R. Kellar, S. F. Stone and T. J. Glenn.

*From Ohio county*—E. D. Guffy, M. S. Ragland, C. M. Barnett, John P. Morton and W. I. Rowe.

*From Oldham county*—A. W. Hardin, D. H. French, James Fox and D. M. Crum.

*From Pendleton county*—E. D. McMath and A. S. Colvin.

*From Powell county*—J. D. Atkinson, O. A. Lyle, M. A. Phillips and J. S. Ewing.

*From Pulaski county*—James Denton and J. Silvers.

*From Rowan county*—J. M. Carey, Alexander Carpenter and A. J. Davis.

*From Shelby county*—W. H. Tipton, E. J. Doss, H. A. Campbell and W. J. Thomas.

*From Simpson county*—G. T. Finn.

*From Spencer county*—John S. Howard, Joseph Poynard, O. P. Tichenor and John A. Rogers.

*From Taylor county*—J. T. Caldwell, G. W. Parrott and J. T. Collins.

*From Todd county*—F. H. Bristow and D. M. Butler.

*From Trimble county*—J. W. Lee, W. C. Morgan and James Crawford.

*From Union county*—L. C. Flournoy, H. M. Davis, W. T. Fenwick, F. B. Brown, Hiram McElroy and W. M. Wright.

*From Warren county*—Chas. Drake, N. R. Strange, Ben. F. Gardner and J. C. Simms.

*From Washington county*—Jack W. Thompson, R. A. Noe and J. H. Thurman.

*From Wayne county*—John M. Dodson, Jr., J. C. Huffaker and Chas. McConnaghy.

*From Wolfe county*—J. C. Lykins, D. S. Godsey, W. G. W. Crewey and G. B. Swango.

*From Woodford county*—A. B. Scott, H. C. Kasselmann, Jas. W. Miller, Thos. Seller and Thompson Davis.

All of the above-named witnesses were given respectful and patient hearings, and not one single county can now be recalled whose witnesses did not express themselves as convinced that,



under the law, with all the facts as presented before the Board considered, no more fair or just conclusions could be arrived at than those indicated in this report as the final actions of this Board ; and many who came before the Board greatly prejudiced against it, and its supposed manner of arriving at conclusions—(by having read untruthful and unwarranted criticism of its manner of procedure, written and published by a few ignorant,—and ignorant because indolent—newspaper correspondents and editors)—when they left, congratulated the Board upon having reduced the matter of equalization as nearly to a science as same could be done under the existing laws. Others very freely expressed the conviction that, without such a Board to equalize the values for taxation as between the counties, in a few years many of the counties would be paying much more than their just proportion of the revenue, while others would escape the bearing of their fair share of the “*burdens of taxation*,” incident and necessary to a proper and economical administration of the affairs of a good State Government.

## SUGGESTIONS.

### TO ASSESSORS.

The assessors of the several counties should bear in mind that the law requires of them, that they assess all property listed for taxation at its “*fair cash value*,” and that each tract of land, and each town lot be assessed separately. Especially, is this latter requirement necessary to be strictly followed in the assessment of any and every “Tract of Land” and “Town Lot” that has been conveyed or transferred within the year immediately prior to the 15th day of September, the date as of which all assessments are required to be made. Assessors have been negligent in this matter, and this Board appeals to them in behalf of a more strict discharge of their duties in the future.

### TO COUNTY BOARDS OF SUPERVISORS.

A thorough and critical examination and study of the work of the several county boards of supervisors, coupled with statements made before this Board by gentlemen who are members

of such Boards, is conclusive that such work has, in many counties of the State, been but poorly done, and this Board is constrained to beg of such officers that they will in future do their whole duty under the law without fear or favor. Some such have possibly been misled by the adoption by this Board of 80 per cent. of sale consideration as the standard or average amount at which the lands or lots transferred are required to be assessed. Under the old statute the assessed valuation of all real estate was required to be "70 per cent. of its fair cash value," whereas, under the new Constitution, all property is required to be assessed at its "*fair cash value*."

This Board, after examining into the tabulated lists of transfers of a great number of counties, found that there were but few pieces of property transferred for actual cash. A large proportion of the sales were made on long time, and the consideration to be paid in small installments. In some counties the deferred payments were to bear interest, and in other counties deferred payments were to bear no interest. This purchaser bought a piece of land that his home place might be more accessible to a public road, and this one paid more than a piece of property was actually worth that he might rid himself of an obnoxious neighbor; or this man paid for a town lot very much more than the property was worth that he might please his wife or daughter by making his home where their friends would be nearer neighbors. Realizing that many such explanations as these for a whole large county or city could not be known to the small number of witnesses (the law permits "not exceeding five"), who could be heard by this Board, and seeing that to raise the lands and lots of a county the full per centums indicated by the transfers would, in many instances, amount almost to confiscation, this Board, after making many calculations and hearing much evidence, became convinced that 80 per cent. of the consideration or sale value of lands and lots, as shown by the tabulated lists of Transfers, was the "*fair cash value*" of the "*property conveyed*." But this 80 per cent. basis is not and was not intended to apply to any other property than that sold and conveyed of record, within one year prior to the 15th day of September, the date as of which all property is by law required to be assessed. All other lands or lots in the county—those



which had not been conveyed—were and are required to be assessed at their “*fair cash value*.” The members of County Boards of Supervisors are selected by County Judges, because of their intelligence and worth as men and citizens, and as well because of their knowledge of the values of lands and lots in their home counties, and with the facilities given such Boards to obtain evidence and to ascertain true values where any measure of doubt exists, and to bring the general assessment of their lands and lots to a “*a fair cash value*,” there is no good reason why it should not be done. And again, the State Board of Equalization begs of all County Boards of Supervisors that they do their full duty under the law.

#### TO COUNTY CLERKS.

Much unnecessary labor has attended the work of equalization this year, because of the fact that there are many newly elected county court clerks, some of whom failed to sufficiently inform themselves with reference to what was required of them by the law.

We beg of these officials that they study well the laws, republished in this report, which prescribe their whole duty touching all records with which this Board has to do, and we trust that, having learned what the law requires of them, they will so perfectly discharge their duties as that this Board will not be forced to call the attention of judges and Commonwealth’s attorneys to any failures on their part, and for which the law has affixed a penalty.

#### TO THE TAX-PAYERS.

The individual members of this Board feel that it is due you, as well as themselves, that they make some exhibit of facts and figures to disabuse your minds of any false impression that may have found lodgment there, by reason of the false statements that have been given circulation by a few newspapers of the State. The principal charge brought against this Board, and to which it objects is, in effect, that, “unreasonable and unlawful additions have been made to the assessed valuations in the State—that revenue may be created to refill an empty

Treasury." The facts and figures disproving any such charge are these: For the years 1889-'90-'91 and '92, the last four years under the law which required all real estate to be assessed at seventy per cent. of its "fair cash value," the average equalized value of lands in this State was \$237,888,310. It will be admitted that lands are very rarely, if ever, either assessed or equalized for taxation at more than the law requires; then it is safe to assume, that the average equalized value above given was not greater than "70 per cent. of the fair cash value" of lands in the State.

Now, if \$237,888,310 was only 70 per cent. of the average "fair cash value" of said lands for the years 1889-'90-'91 and '92, then it necessarily follows that the "*average fair cash value*" of lands for those years was \$339,840,404, which amount is \$85,371,656, or more nearly 34 than 33 per cent. greater than \$254,468,748, the amount at which this Board has this year equalized the value of the lands of the State for taxation.

In the discharge of his duty as a member of this Board, each individual has been more influenced toward the individual taxpayer by reason of the "*hard times*" than toward the Commonwealth because of an empty Treasury; and now that the work of equalization for the year 1895 is completed, the members of this Board feel that if they have erred at all, it has been in favor of the tax-payer.

On May 2d, 1895, the Board gave directions as to what matter should appear in this Report, and then adjourned *sine die*.

JOHN S. PHELPS, *Chairman*.

Attest: ROBT. B. FRANKLIN, *Chief Secretary*.

TABLE No. 1—Showing Assessed Values, Exemptions, Per Centums Added or Deducted, and Equalized Values by Counties, Together with Amount of Tax Due from Each County at 42½ Cents on Each \$100 of Grand Total Equalized Value.

COUNTIES.		Amount of Bonds .	Amount of Notes Secured by Mortgage . . . . .	Amount of Other Notes . . . . .	Amount of Accounts . . . . .	Amount of Cash on Hand . . . . .
No. of Column on Recapitulation Sheet . . .	1	2	3	4	5	
Adair . . . . .	\$11,900	\$44,366	\$114,652	\$16,452	\$17,109	
Allen . . . . .	26,349	33,330	51,202	10,925	13,331	
Anderson . . . . .	17,200	32,955	82,915	15,075	14,621	
Ballard . . . . .	..	101,721	51,017	16,435	6,504	
Barren . . . . .	42,893	69,988	141,705	11,403	62,994	
Bath . . . . .	..	31,545	104,440	19,090	18,805	
Bell . . . . .	702	22,099	76,790	22,548	14,630	
Boone . . . . .	15,500	147,487	342,160	18,620	14,025	
Bourbon . . . . .	42,900	319,571	439,531	109,398	35,259	
Boyd . . . . .	101,675	299,389	262,471	90,777	35,357	
Boyle . . . . .	217,040	239,563	736,639	99,205	233	
Bracken . . . . .	23,030	53,235	135,075	12,135	19,095	
Breathitt . . . . .	1,000	11,233	50,985	9,967	8,454	
Breckinridge . . . . .	128,150	60,325	182,630	24,840	28,189	
Bullitt . . . . .	13,500	61,894	178,219	23,476	23,281	
Butler . . . . .	11,169	51,246	105,160	17,559	19,009	
Caldwell . . . . .	18,000	86,603	146,775	17,129	98,579	
Calloway . . . . .	100	52,497	219,092	38,867	25,895	
Campbell . . . . .	20,600	84,191	56,125	6,227	73,650	
Carlisle . . . . .	3,600	27,165	30,935	15,025	2,685	
Carroll . . . . .	4,200	96,343	96,343	12,207	11,615	
Carter . . . . .	215	18,991	69,012	21,630	17,001	



Hancock	820	12,785	19,982	14,475	7,250
Lardin	42,400	33,978	133,916	9,042	29,286
Harlan	2,308	11,752	83,400	20,147	15,092
Harrison	1,800	70,250	253,353	18,891	8,130
Hart	26,750	130,216	229,322	28,348	29,076
Henderson	140,225	325,145	413,980	113,240	31,030
Henry	7,450	158,195	172,825	20,720	11,540
Hickman	20,665	39,496	161,407	13,651	15,929
Hopkins	12,545	72,260	215,210	33,855	62,550
Jackson	1,835	855	29,543	15,331	11,560
Jefferson	2,471,980	2,018,292	782,776	4,247,791	297,768
Jessamine	..	87,191	191,197	11,625	8,905
Johnson	19,721	22,164	64,540	19,690	2,596
Kenton	235,900	556,075	97,575	715,835	35,990
Knott	..	5,659	46,801	23,800	9,909
Knox	8,980	19,896	90,511	28,657	23,135
Larue	11,718	36,482	102,520	19,808	9,152
Laurel	29,790	25,562	110,956	33,733	22,730
Lawrence	9,025	15,830	87,599	27,700	39,405
Lee	3,400	4,490	22,424	9,147	14,624
Leslie	..	1,669	41,625	21,838	14,094
Letcher	..	4,855	46,994	26,677	9,426
Lewis	6,470	67,240	54,803	10,195	4,350
Lincoln	15,407	44,633	136,662	35,827	22,827
Livingston	..	24,440	152,110	22,650	21,455
Logan	93,290	183,997	196,750	42,860	8,360
Lyon	540	40,906	47,754	13,163	14,063
Madison	25,780	128,810	543,640	56,120	37,810
Magoffin	688	6,997	32,947	22,304	6,124
Marion	48,550	15,500	411,700	37,150	52,875
Marshall	14,500	35,488	126,574	28,446	43,966
Martin	..	4,882	14,217	17,936	10,391
Mason	25,000	46,925	311,805	3,380	150,306
McCracken	17,665	170,090	64,605	26,590	15,085
McLean	400	29,125	200,575	15,275	5,280
Meade	3,400	68,030	127,297	14,022	12,336
Menefee	600	2,072	10,936	7,815	5,171
Mercer	260	87,083	222,562	22,895	11,408
Metalfe	3,800	26,347	94,071	20,936	26,680



TABLE No. 1—Continued.

COUNTIES.	No. of Column on Recapitulation Sheet . . . . .	Amount of Bonds. .	Amount of Notes Secured by Mortgage. . . . .	Amount of Other Notes . . . . .	Amount of Accounts. . . . .	Amount of Cash on Hand . . . . .
		1	2	3	4	5
Monroe. . . . .		\$16,055	\$24,720	\$123,625	\$21,145	\$25,945
Montgomery. . . . .		..	28,465	156,565	4,360	43,582
Morgan. . . . .		..	4,915	77,291	26,682	12,601
Muhlenberg. . . . .		8,105	28,445	48,210	19,220	57,895
Nelson. . . . .		272,220	248,607	519,126	60,735	34,931
Nichols. . . . .		5,000	45,590	366,815	44,265	6,055
Ohio. . . . .		7,160	29,910	147,482	22,025	19,048
Oldham. . . . .		38,800	216,845	311,050	14,005	5,700
Owen. . . . .		6,900	64,250	153,435	20,075	40,715
Owsley. . . . .		..	3,969	39,151	7,268	11,376
Pendleton. . . . .		16,390	79,585	186,923	17,735	23,975
Perry. . . . .		..	5,780	30,453	26,261	7,992
Pike. . . . .		1,497	25,753	146,370	68,924	29,588
Powell. . . . .		4,900	17,568	25,080	4,514	11,578
Pulaski. . . . .		7,221	82,116	113,177	36,258	21,512
Robertson. . . . .		11,275	11,385	62,690	7,850	1,750
Rockcastle. . . . .		19,500	19,560	49,286	13,374	8,955
Rowan. . . . .		..	20,098	25,319	10,484	6,174
Russell. . . . .		1,000	15,160	72,920	12,952	21,170
Scott. . . . .		11,000	366,760	197,874	18,536	6,200
Shelby. . . . .		69,090	87,040	412,920	13,010	44,530
Simpson. . . . .		16,305	105,257	149,428	14,603	27,011
Spencer. . . . .		11,150	20,102	49,447	5,975	1,890



Taylor . . . . .	8,645	13,393	18,384	3,044	19,956
Todd . . . . .	163,300	74,060	177,640	5,620	84,135
Trigg . . . . .	82,750	132,114	63,143	10,872	19,246
Trimble . . . . .	7,000	8,480	8,000	2,100	1,775
Union . . . . .	8,870	126,290	423,985	35,995	8,000
Warren . . . . .	160,715	182,455	504,675	39,528	66,915
Washington . . . . .	48,245	50,655	254,250	26,555	2,855
Wayne . . . . .	7,225	7,835	129,315	13,832	25,905
Webster . . . . .	6,525	57,284	301,824	36,635	49,006
Whitley . . . . .	6,440	17,217	188,999	65,821	26,238
Wolle . . . . .	660	9,457	70,360	16,124	11,313
Woodford . . . . .	25,980	448,006	585,147	86,793	11,559
Great Grand Total. . . . .	\$6,160,293	\$11,927,827	\$20,587,280	\$8,149,696	\$3,115,642

TABLE No. 1—Continued.

COUNTIES.	No. of Column on Recapitulation Sheet. . .						
		6	7	8	9	10	11
		Amount of Cash on Deposit in Bank .	Amount of Cash on Deposit with other Corporations. . .	Amount of Cash on Deposit with Individuals . . . .	Amount of all other Credits or Money at Interest . . . .	Amount of Stock in Joint Stock Companies or Associations . . . . .	Amount of Stock in Foreign Corporations . . . . .
Adair . . . . .		\$38,510	\$4,024	. . . .	\$26,500	\$2,190	. . . .
Allen . . . . .		12,429	150	\$300	8,000	. . . .	. . . .
Anderson . . . . .		76,738	2,100	. . . .	6,500	8,450	. . . .
Ballard . . . . .		13,114	100	250	176	. . . .	. . . .
Barren . . . . .		62,157	500	2,575	2,050	2,012	. . . .
Bath . . . . .		84,075	925	. . . .	34,030	. . . .	. . . .
Bell . . . . .		7,257	50	152	2,500	5	\$50
Boone . . . . .		61,889	. . . .	. . . .	60,260	18,585	4,290
Bourbon . . . . .		126,678	8,300	3,035	17,550	158,695	18,699
Boyd . . . . .		108,671	12,738	2,120	39,359	1,237	800
Boyle . . . . .		76,148	3,000	. . . .	88,059	46,533	29,735
Bracken . . . . .		38,390	. . . .	. . . .	1,750	. . . .	. . . .
Breathitt . . . . .		8,879	514	. . . .	15	. . . .	240
Breckinridge . . . . .		59,185	. . . .	935	3,265	1,065	. . . .
Bullitt . . . . .		16,556	900	. . . .	7,190	. . . .	. . . .
Butler . . . . .		16,846	2,341	924	. . . .	. . . .	. . . .
Caldwell . . . . .		28,795	. . . .	. . . .	. . . .	10	. . . .
Calloway . . . . .		17,024	126	723	7,802	2,034	2,220
Campbell . . . . .		11,510	685	. . . .	10,500	16,335	. . . .
Carlisle . . . . .		6,860	1,000	400	. . . .	. . . .	. . . .
Carroll . . . . .		27,923	. . . .	1,160	. . . .	12,070	. . . .
Carter . . . . .		17,475	980	380	. . . .	833	155
Casey . . . . .		11,730	500	306	1,050	. . . .	500

Christian	89,875	200	320	1,550	46,055	4,075
Clark	76,860				128,030	1,225
Clay	2,440		400		15,000	
Clinton	4,550					
Crittenden	37,527				14,000	
Cumberland	28,352				175	
Daveiss	162,919	28	150	50	5,550	
Edmonson	13,490	1,000	2,070	47,755		
Elliott	4,801		125	50		
Estill	18,925	65		1,780	104	
Fayette	280,100	15,500	2,100	5,450	149,700	30,925*
Fleming	67,099	500		61,609	900	
Floyd	6,833	521	250	2,600	590	
Franklin	46,658	746		12,800	1,395	
Fulton	13,490		300	18,320	6,785	150
Gallatin	10,424	472				
Garrard	30,686		100	4,000	32,965	625
Grant	66,885	150		8,540	55,105	1,060
Graves	36,949	11,535	4,300	6,250	1,624	
Grayson	17,943	210		475		
Green	21,136	1,541		323	4,150	
Greenup	15,420	250		11,320	1,395	1,600
Hancock	19,420			37,880	200	
Hardin	24,266			11,665	34,530	
Harlan	2,938	3,880		110	200	
Harrison	34,339	5		1,100		800
Hart	75,268	210	8,745	146,460	1,635	
Henderson	202,540	450	9,135	39,430	14,150	
Henry	44,330	285	1,000	15,860	57,140	195
Hickman	31,163			11,410	28,000	2,150
Hopkins	65,295		210	41,093	9,744	
Jackson	907	10	475	7,520		
Jefferson	1,025,562	115,130	51,060	1,188,720	167,015	79,950
Jessamine	28,117	400	600	78,700	51,480	
Johnson	6,532		426	1,840	1,320	
Kenton	13,950	50		34,775		16,000
Knott	5,205			541		
Knox	28,178		46	4,450	150	
Larue	29,713	300				50

TABLE No. 1—Continued.

COUNTIES.	No. of Column on Recapitulation Sheet. . .	6	7	8	9	10	11
		Amount of Cash on Deposit in Bank. .	Amount of Cash on Deposit with other Corporations . . .	Amount of Cash on Deposit with Individuals . . . . .	Amount of all other Credits or Money at Interest. . . . .	Amount of Stock in Joint Stock Companies or Associations . . . . .	Amount of Stock in Foreign Corporations . . . . .
Laurel. . . . .		\$14,482		\$3,000	\$21,879	\$85	
Lawrence . . . . .		15,024	\$433	100	995	2,750	
Lee. . . . .		7,324			13,000	150	
Leslie . . . . .		2,842			890		
Letcher . . . . .		2,730			1,275		
Lewis . . . . .		30,692			200	4,635	
Lincoln . . . . .		31,579	150	2,500	14,329	50	\$10
Livingston . . . . .		16,300	80	150	2,000		
Logan . . . . .		73,498	3,000		66,530	8,735	
Lyon . . . . .		44,543		155	3,615	500	700
Madison . . . . .		32,610			890	6,000	
Magoffin . . . . .		4,109	500	25	10,411	100	
Marion . . . . .						14,350	
Marshall . . . . .		8,282			7,000	410	130
Martin . . . . .		176		90	400		
Mason . . . . .		180,014	600		45,900	600	2,400
McCracken . . . . .		45,370	1,000		12,930	7,210	545
McLean . . . . .		30,855					
Mende . . . . .		39,088	2,000				
Menefee . . . . .		2,775	30		5,150		
Mercer . . . . .		31,846			140		300
Metcalfe . . . . .		20,718	20		150	347	
Monroe . . . . .		22,910	50		2,040	1,900	

[illegible]



TABLE No. 1—Continued.

COUNTIES.	No. of Column on Recapitulation Sheet.	No. Acres of Land .					Value of Each with Improvements . .		No. of City or Town Lots . . . . .		Value of Each with Improvements . .		No. of Thoroughbred or Standard Stallions . . . . .		Value . . . . .	
		12	15	16	18	20	15	16	18	19	20	15	16	18	19	20
Adair . . . . .		232,037	4979,558	208	\$98,010	5		\$98,010		208		\$98,010	5			\$950
Allen . . . . .		199,057	844,412	249	82,540	1		82,540		249		82,540	1			250
Anderson . . . . .		124,268	1,418,845	370	271,680	1		271,680		370		271,680	1			100
Ballard . . . . .		159,227	1,114,767	723	84,730	1		84,730		723		84,730	1			150
Barron . . . . .		281,219	1,762,929	530	393,440	7		393,440		530		393,440	7			2,050
Bath . . . . .		162,450	1,967,540	403	192,980	2		192,980		403		192,980	2			400
Bell . . . . .		228,302	860,812		907,061			907,061				907,061				
Boone . . . . .		153,106	4,489,290	842	369,625	10		369,625		842		369,625	10			2,650
Bourbon . . . . .		179,362	8,890,952	1,801	1,674,807	48		1,674,807		1,801		1,674,807	48			15,025
Boyd . . . . .		84,236	928,132	2,417	2,014,812	4		2,014,812		2,417		2,014,812	4			850
Boyle . . . . .		109,000	3,508,558	1,452	1,311,480	26		1,311,480		1,452		1,311,480	26			9,150
Bracken . . . . .		123,966	1,809,310	716	408,920			408,920				408,920				
Breathitt . . . . .		335,129	804,392	164	80,185			80,185				80,185				
Breckinridge . . . . .		319,549	1,898,755	932	470,545	1		470,545		932		470,545	1			125
Bullitt . . . . .		175,708	1,270,192	367	116,455	2		116,455		367		116,455	2			275
Butler . . . . .		240,296	1,026,318	298	123,489	2		123,489		298		123,489	2			250
Caldwell . . . . .		198,535	1,511,661	500	463,560	6		463,560		500		463,560	6			1,100
Calloway . . . . .		234,039	1,430,426	423	226,087	5		226,087		423		226,087	5			1,000
Campbell . . . . .		89,712	3,404,935	7,524	11,643,602	3		11,643,602		7,524		11,643,602	3			700
Carlisle . . . . .		103,686	825,975	469	161,485	1		161,485		469		161,485	1			100
Carroll . . . . .		77,718	1,441,521	809	626,750	15		626,750		809		626,750	15			2,050
Carter . . . . .		229,577	597,252	368	102,650			102,650				102,650				
Casey . . . . .		233,228	1,637,172	111	44,090	3		44,090		111		44,090	3			450

Christian	404,890	1,548	1,688,030	11	3,050
Clark	155,885	1,680	1,308,820	1	600
Clay	257,709	46	33,575		
Clinton	110,240	182	29,090	1	300
Crittenden	204,664	541	278,750	1	200
Cumberland	141,347	82	49,502	2	1,200
Davies	263,183	3,215	3,639,895	40	5,760
Daveiss	183,540	650,837	23,125		
Edmonson	137,531	583,301	15,720	1	150
Elliot	138,331	783,751	77,600	2	300
Estill	172,755	7,997	11,238,875	133	84,275
Fayette	214,340	821	529,581	3	400
Fleming	265,556	83	58,625	3	550
Floyd	123,129	1,388	2,138,010	10	7,650
Franklin	114,988	1,428	563,160	3	375
Fulton	60,711	962,533	140,088	2	650
Gallatin	134,780	206	333,285	1	250
Garrard	154,081	441	322,985	3	525
Grant	383,349	1,187	918,662	8	1,625
Graves	287,477	981,145	181,645	3	700
Grayson	136,774	705,307	60,890	2	300
Green	178,860	1,089,825	249,405		
Greenup	116,786	1,045,881	168,605	1	700
Hancock	346,519	2,217,927	457,016	6	1,250
Hardin	276,026	994,341	48,804	1	200
Harlan	189,819	4,068,560	1,124,710	31	6,385
Harrison	241,388	1,609,744	162,708	2	400
Hart	263,515	4,860,880	3,328,090	6	1,500
Henderson	176,353	2,663,664	485,230	9	1,400
Henry	146,329	1,812,861	275,671		
Hickman	313,864	2,037,125	869,680		
Hopkins	189,367	568,189	6,780		
Jackson	222,390	10,493,315	85,728,995	17	14,750
Jefferson	105,972	3,308,869	573,150	11	3,300
Jessamine	157,546	822,125	84,540		
Johnson	96,548	4,497,910	23,259,744	1	500
Kenton	219,177	588,146	17,510	1	125
Knott	193,406	1,018,291	216,280		
Knox	157,906	1,260,467	144,027	1	300
Larue					

TABLE No. 1—Continued.

COUNTIES.	No. of Column on Recapitulation Sheet . . . . .	No. Acres of Land .					Value of Each with Improvements . .			No. of City or Town Lots . . . . .		Value of Each with Improvements . .		No. of Thoroughbred or Standard Stallions . . . . .		Value . . . . .	
		12	15	16	18	20	12	15	16	18	20	12	15	16	18	20	20
	Laurel . . . . .	239,399	\$1,024,350	285	\$191,703		239,399	\$1,024,350	285	\$191,703							
	Lawrence . . . . .	240,790	1,295,805	253	211,650		240,790	1,295,805	253	211,650							
	Lee . . . . .	128,497	556,853	346	146,585		128,497	556,853	346	146,585							
	Leslie . . . . .	289,030	553,881	32	20,875		289,030	553,881	32	20,875							
	Letcher . . . . .	232,768	668,618	22	14,675		232,768	668,618	22	14,675							
	Lewis . . . . .	297,305	1,546,343	511	255,095		297,305	1,546,343	511	255,095							
	Lincoln . . . . .	195,327	3,017,919	648	495,075		195,327	3,017,919	648	495,075							
	Livingson . . . . .	192,295	1,283,785	506	152,040		192,295	1,283,785	506	152,040							
	Logan . . . . .	316,370	3,114,695	1,110	603,660		316,370	3,114,695	1,110	603,660							
	Lyon . . . . .	141,071	709,770	543	154,995		141,071	709,770	543	154,995							
	Madison . . . . .	261,638	5,544,910	1,427	1,416,520		261,638	5,544,910	1,427	1,416,520							
	Magoffin . . . . .	133,700	666,540	59	28,635		133,700	666,540	59	28,635							
	Marion . . . . .	188,502	1,653,900	787	557,735		188,502	1,653,900	787	557,735							
	Marshall . . . . .	201,573	1,120,604	498	122,664		201,573	1,120,604	498	122,664							
	Martin . . . . .	238,493	483,889	133	42,845		238,493	483,889	133	42,845							
	Mason . . . . .	148,738	5,571,387	2,771	2,315,445		148,738	5,571,387	2,771	2,315,445							
	McCracken . . . . .	152,202	1,617,135	2,896	4,311,550		152,202	1,617,135	2,896	4,311,550							
	McLean . . . . .	146,742	995,830	570	197,220		146,742	995,830	570	197,220							
	Meade . . . . .	190,388	1,519,107	450	117,784		190,388	1,519,107	450	117,784							
	Menefee . . . . .	108,503	360,084	51	12,463		108,503	360,084	51	12,463							
	Mercer . . . . .	151,559	2,788,801	1,058	992,285		151,559	2,788,801	1,058	992,285							
	Metcalfe . . . . .	165,269	793,558	1,104	35,653		165,269	793,558	1,104	35,653							
	Monroe . . . . .	194,176	833,535	165	60,285		194,176	833,535	165	60,285							

Montgomery . . . . .	113,253	2,604,727	873	1,153,475	5	550
Morgan . . . . .	234,981	959,871	137	59,142	4	800
Muhlenberg . . . . .	260,239	1,101,436	827	364,972	8	3,350
Nelson . . . . .	240,171	3,411,625	666	516,335	6	775
Nicholas . . . . .	120,917	2,396,900	427	334,340	1	400
Ohio . . . . .	339,976	1,897,894	941	381,530	8	990
Oldham . . . . .	116,046	1,381,885	390	330,190	5	1,475
Owen . . . . .	205,065	2,422,520	433	293,230	1	100
Owsley . . . . .	118,083	525,524	53	35,010	1	100
Pendleton . . . . .	164,737	2,257,839	408	356,470	1	100
Perry . . . . .	251,374	589,836	24	13,750	1	100
Pike . . . . .	664,412	1,635,171	132	162,391	1	100
Powell . . . . .	80,159	351,377	135	75,685	1	100
Pulaski . . . . .	394,713	1,614,044	1,010	655,977	3	400
Robertson . . . . .	59,235	654,003	153	83,995	1	100
Rockcastle . . . . .	175,200	612,005	221	79,265	1	100
Rowan . . . . .	178,329	391,562	214	74,555	1	100
Russell . . . . .	146,979	606,587	130	22,295	1	100
Scott . . . . .	177,434	5,479,976	1,078	1,242,720	15	1,600
Shelby . . . . .	232,042	5,608,200	781	726,935	6	1,100
Simpson . . . . .	139,892	1,361,391	211	426,547	1	150
Spencer . . . . .	116,687	1,236,036	211	82,247	1	150
Taylor . . . . .	151,761	576,779	400	137,315	5	550
Todd . . . . .	215,658	1,905,415	661	408,855	5	1,775
Trigg . . . . .	277,541	1,448,599	374	179,645	1	100
Trimble . . . . .	80,632	1,115,172	159	64,665	1	100
Union . . . . .	221,857	4,621,885	2,021	759,695	15	3,025
Warren . . . . .	315,536	3,982,141	2,187	2,171,820	15	3,100
Washington . . . . .	176,212	1,686,540	259	176,300	2	200
Wayne . . . . .	308,484	1,062,822	53	42,015	2	300
Webster . . . . .	202,872	1,646,571	1,141	390,025	1	300
Whitley . . . . .	291,669	1,349,469	582	281,621	2	200
Wolfe . . . . .	160,321	548,003	113	58,285	2	200
Woodford . . . . .	118,311	5,272,680	934	862,500	36	27,500
Total . . . . .	\$23,479,124	\$241,472,808	94,431	\$188,160,317	686	\$240,775

TABLE No. 1—Continued.

COUNTIES.	No. of Column on Recapitulation Sheet.	21		22		23		24		25		26	
		No. of Thoroughbred or Standard Geldings.		Value.		No. of Thoroughbred or Standard Mares and Colts		Value.		No. of Stallions of Common Stock.		Value.	
Adair . . . . .		1		\$40						31		\$2,955	
Allen . . . . .						1		\$50		19		1,965	
Anderson . . . . .						3		150		24		2,125	
Ballard . . . . .										26		3,440	
Barren . . . . .						21		1,625		36		4,490	
Bath . . . . .		44		1,360		4		170		18		1,140	
Bell . . . . .													
Boone . . . . .													
Bourbon . . . . .		71		7,650		1		50		14		1,325	
Boyd . . . . .		2		150		499		42,320		15		2,255	
Boyle . . . . .		28		1,905		474		34,265		11		975	
Bracken . . . . .						3		75		33		3,875	
Breathitt . . . . .										21		2,150	
Breckinridge . . . . .										4		200	
Bullitt . . . . .						1		100		20		2,595	
Butler . . . . .		3		225		5		£25		14		1,280	
Caldwell . . . . .						1		60		14		1,850	
Calloway . . . . .						5		400		27		3,160	
Campbell . . . . .						6		230		29		3,590	
Carlisle . . . . .		7		1,150						8		250	
Carroll . . . . .		6		200		7		700		10		1,510	
Carter . . . . .						15		800		23		2,470	
Casey . . . . .						4				7		420	
										9		1,615	



Christian	2	275	66	9,500	16	2,350
Clark	.	.	26	1,850	23	2,155
Clay	.	.	.	.	6	250
Olin	.	.	.	.	6	675
Crittenden	.	.	.	.	20	2,225
Cumberland	.	.	.	.	8	1,125
Daveiss	4	230	142	10,745	49	6,320
Edmonson	2	350	5	340	6	650
Elliott	1	75	3	110	2	275
Estill	.	.	.	.	10	880
Fayette	45	3,425	3,136	311,475	101	4,950
Fleming	.	.	6	260	31	2,955
Floyd	1	100	.	.	4	310
Franklin	16	1,075	260	22,620	18	1,360
Fulton	.	.	3	100	18	1,575
Gallatin	.	.	4	200	5	575
Garrard	14	.	14	880	20	1,775
Gart	1	100	11	525	27	1,905
Graves	1	75	13	935	48	5,890
Grayson	.	.	10	980	20	2,360
Green	.	.	.	.	15	1,465
Greenup	.	.	.	.	21	960
Hancock	.	.	.	.	12	1,740
Hardin	1	50	5	195	52	4,750
Harlan	.	.	.	.	.	.
Harrison	9	650	206	16,575	51	3,725
Hart	1	400	2	450	34	5,825
Henderson	5	570	9	775	25	3,075
Henry	.	.	43	2,700	31	2,865
Hickman	1	300	3	150	23	2,700
Hopkins	.	.	2	400	20	2,275
Jackson	.	.	.	.	4	625
Jefferson	81	32,050	114	50,500	11	2,150
Jessamine	6	575	190	13,550	29	2,950
Johnson	2	160	1	25	8	775
Kenton	.	.	6	275	.	.
Knott	.	.	.	.	6	655
Knox	.	.	.	.	18	1,950
Larue	.	.	.	.	24	2,370

TABLE No. 1—Continued.

COUNTIES.	No. of Column on Recapitulation Sheet . . . . .	No. of Thoroughbred or Standard Geld- ings . . . . .		Value . . . . .		No. of Thoroughbred or Standard Mares and Colts . . . . .		Value . . . . .		No. of Stallions of Common Stock . .		Value . . . . .	
		21	22	22	23	24	25	26	27	28	29	30	31
Laur. l.	2	\$500	18	1,990	18	1,990	18	1,990	18	1,990	18	1,990	18
Lawrence	1	10	10	1,150	10	1,150	10	1,150	10	1,150	10	1,150	10
Lee	1	3	3	300	3	300	3	300	3	300	3	300	3
Leslie	1	2	2	200	2	200	2	200	2	200	2	200	2
Letcher	1	8	8	860	8	860	8	860	8	860	8	860	8
Lewis	1	15	15	1,450	15	1,450	15	1,450	15	1,450	15	1,450	15
Lincoln	6	375	136	\$6,633	44	\$6,633	44	3,350	44	3,350	44	3,350	44
Livingston	1	175	4	425	14	425	14	2,140	14	2,140	14	2,140	14
Logan	1	1,630	3	220	48	220	48	7,025	48	7,025	48	7,025	48
Lyon	30	200	27	1,430	7	1,430	7	550	7	550	7	550	7
Madison	1	100	61	5,360	49	5,360	49	4,360	49	4,360	49	4,360	49
Magoffin	1	100	2	150	9	150	9	1,045	9	1,045	9	1,045	9
Marion	1	400	1	600	27	600	27	3,400	27	3,400	27	3,400	27
Marshall	1	100	8	245	23	245	23	2,325	23	2,325	23	2,325	23
Martin	2	100	36	3,350	8	3,350	8	245	8	245	8	245	8
Mason	1	400	11	1,375	2	1,375	2	3,350	11	3,350	11	3,350	11
McCracken	1	100	7	975	1	975	7	1,375	7	1,375	7	1,375	7
McLean	1	100	33	3,845	3	3,845	33	3,845	33	3,845	33	3,845	33
Meade	1	100	18	1,230	75	1,230	18	1,230	18	1,230	18	1,230	18
Menefee	1	100	21	2,610	2	2,610	21	2,610	21	2,610	21	2,610	21
Mercer	1	100	14	2,010	2	2,010	14	2,010	14	2,010	14	2,010	14
Metz	1	100	14	2,010	2	2,010	14	2,010	14	2,010	14	2,010	14
Monroe	1	100	14	2,010	2	2,010	14	2,010	14	2,010	14	2,010	14

Montgomery.	6	325	31	1,625	9	1,425
Morgan.	2	175	.	.	15	1,585
Muhlenberg.	5	325	20	1,050	29	2,540
Nelson.	2	600	8	.	36	3,530
Nicholas.	.	.	26	1,620	25	2,005
Ohio.	.	.	17	880	37	4,585
Oldham.	.	.	13	1,350	13	1,040
Owen.	.	.	3	300	9	835
Owsley.	.	.	.	.	5	650
Pendleton.	.	.	1	25	34	1,945
Perry.	.	.	.	.	1	100
Pike.	.	.	1	50	4	500
Powell.	.	.	.	.	22	1,025
Pulaski.	1	30	11	485	35	2,780
Robertson.	.	.	.	.	8	625
Rockcastle.	.	.	4	155	23	1,855
Rowan.	3	80	.	.	4	425
Russell.	.	.	.	.	13	1,275
Scott.	4	650	130	9,700	47	3,785
Shelby.	11	1,100	66	4,240	59	5,585
Simpson.	.	.	2	150	28	3,220
Spencer.	.	.	.	.	15	1,195
Taylor.	.	.	17	625	15	1,040
Todd.	2	400	2	400	8	1,225
Trigg.	.	.	5	144	11	1,475
Trimble.	.	.	.	.	20	2,510
Union.	6	500	57	3,000	29	2,675
Warren.	6	600	17	1,270	63	12,190
Washington.	.	.	41	4,490	33	2,260
Wayne.	.	.	.	.	21	2,015
Webster.	.	.	.	.	15	1,725
Whitley.	.	.	2	105	13	1,395
Wolfe.	.	.	.	.	4	400
Woodford.	26	3,175	625	103,300	29	6,475
Total.	459	\$64,580	6,748	\$682,682	2,378	\$250,580

TABLE No. 1—Continued.

COUNTIES.	No. of Column on Recapitulation Sheet.	No. of Geldings, Mares and Colts of Common Stock . .				Value . . . . .		No. of Mules and Mule Colts . . . .		Value . . . . .		No. of Jacks . . . .		Value . . . . .	
		27	28	29	30	31	32								
Adair . . . . .		4,823	\$181,506	1,517	\$60,188	28	\$2,080								
Allen . . . . .		3,416	125,493	2,672	103,353	45	2,820								
Anderson . . . . .		4,202	120,140	1,625	17,590	32	3,530								
Baillard . . . . .		3,434	132,242	1,851	78,835	16	2,135								
Barren . . . . .		6,831	235,242	2,626	104,592	41	4,383								
Bath . . . . .		2,052	50,185	688	18,090	40	2,400								
Bell . . . . .		787	37,494	430	25,425	11	650								
Boone . . . . .		3,424	143,670	436	17,445	4	1,000								
Bourbon . . . . .		6,070	181,970	1,546	56,965	190	15,765								
Boyd . . . . .		1,581	76,322	284	16,945	2	125								
Boyle . . . . .		3,450	113,495	1,269	48,138	108	17,750								
Bracken . . . . .		3,412	84,005	57	1,590	2	100								
Breathitt . . . . .		1,516	70,291	379	19,160	4	280								
Breckinridge . . . . .		5,318	245,855	1,364	65,425	14	1,620								
Bullitt . . . . .		3,746	127,864	823	30,693	11	1,180								
Butler . . . . .		2,126	93,002	1,075	47,947	13	2,145								
Caldwell . . . . .		3,555	154,529	2,078	96,327	20	3,010								
Calloway . . . . .		4,325	187,706	2,968	129,740	31	4,725								
Campbell . . . . .		1,797	104,700	123	5,965										
Carlisle . . . . .		2,597	107,080	629	27,243	8	1,260								
Carroll . . . . .		3,569	105,040	481	15,285	12	1,300								
Carter . . . . .		2,748	120,709	429	21,049	4	500								
Casey . . . . .		4,403	159,058	1,208	54,103	39	4,050								

Christman . . . . .	5,330	220,105	5,090	218,835	81	7,260
Clark . . . . .	4,929	155,400	1,570	53,120	56	7,470
Clay . . . . .	1,812	81,447	1,279	71,746	9	785
Clinton . . . . .	1,658	68,919	647	29,046	12	1,510
Crittenden . . . . .	4,706	229,079	1,838	95,183	22	1,730
Cumberland . . . . .	2,304	95,911	934	42,026	10	730
Daveiss . . . . .	9,973	399,380	2,176	97,095	15	1,875
Edmonson . . . . .	2,138	92,867	437	27,327	3	390
Elliott . . . . .	2,116	105,570	334	19,435	3	375
Estill . . . . .	1,584	54,540	566	21,420	4	310
Payette . . . . .	4,794	169,975	1,297	62,400	25	3,075
Fleming . . . . .	6,725	202,295	665	50,146	62	3,870
Floyd . . . . .	2,148	101,431	526	25,081	4	600
Franklin . . . . .	4,650	159,243	577	22,911	8	1,205
Fulton . . . . .	2,464	105,005	1,234	56,445	12	1,750
Gallatin . . . . .	2,138	69,538	377	13,277	2	300
Garrard . . . . .	4,837	162,280	1,188	46,430	54	5,405
Grant . . . . .	5,884	152,444	579	14,485	9	920
Graves . . . . .	8,506	355,384	4,659	191,789	59	6,170
Grayson . . . . .	5,297	199,941	1,262	50,455	8	1,745
Green . . . . .	3,117	95,468	1,346	42,638	13	1,700
Greenup . . . . .	2,328	108,115	588	32,235	2	303
Hancock . . . . .	2,469	115,580	588	30,915	7	1,450
Hardin . . . . .	7,448	217,558	1,443	56,495	26	2,810
Harlan . . . . .	761	37,022	475	29,693	16	1,060
Harrison . . . . .	7,778	209,655	962	27,002	51	5,425
Hart . . . . .	5,112	226,482	1,755	81,707	12	1,495
Henderson . . . . .	6,632	249,395	4,015	174,335	19	2,690
Henry . . . . .	5,770	150,040	493	15,570	14	1,580
Hickman . . . . .	3,363	134,615	1,313	54,045	15	1,050
Hopkins . . . . .	6,032	205,725	2,903	110,900	38	5,525
Jackson . . . . .	2,155	90,304	448	21,154	1	100
Jefferson . . . . .	4,226	451,433	1,288	143,785	15	1,410
Jessamine . . . . .	3,498	103,110	850	27,593	17	2,925
Johnson . . . . .	2,20	104,705	503	28,497	8	475
Kenton . . . . .	3,143	171,030	184	6,050	2	150
Knot . . . . .	867	47,916	380	26,205	16	1,410
Knox . . . . .	2,290	97,756	1,413	75,004	17	2,140
Larue . . . . .	3,873	151,460	864	35,087		



TABLE No. 1—Continued.

COUNTIES.	No. of Column on Recapitulation Sheet . . . . .	No. of Geldings, Mares and Colts of Common Stock.				Value . . . . .				No. of Mules and Mule Colts . . . . .				Value . . . . .				No. of Jacks. . . . .				Value . . . . .			
		27				28				29				30				31				32			
Laurel . . . . .		2,527				\$106,664				833				\$43,023				9				\$650			
Lawrence . . . . .		3,108				166,955				392				24,375				9				585			
Lee . . . . .		989				48,032				186				9,630				1				50			
Leslie . . . . .		547				27,521				433				28,072				1				15			
Letcher . . . . .		1,078				58,743				571				41,330				3				150			
Lewis . . . . .		2,331				95,145				272				12,970				11				950			
Lincoln . . . . .		4,874				154,364				1,663				62,544				200				14,740			
Livingston . . . . .		3,303				158,735				1,701				90,295				13				1,240			
Logan . . . . .		6,022				228,675				3,926				155,375				106				15,160			
Lyon . . . . .		1,755				73,533				1,400				62,422				7				355			
Madison . . . . .		8,659				228,580				2,340				73,050				188				10,640			
Magoffin . . . . .		1,940				83,143				746				37,421				17				1,445			
Marion . . . . .		4,162				141,370				1,388				41,040				67				9,420			
Marshall . . . . .		3,125				127,123				2,133				90,027				46				3,320			
Martin . . . . .		493				26,980				137				8,746				1				150			
Mason . . . . .		4,680				133,105				524				15,875				29				2,750			
McCracken . . . . .		2,217				82,870				985				39,385				22				2,305			
McLean . . . . .		3,726				164,655				783				39,671				13				1,540			
Meade . . . . .		4,300				156,432				979				40,139				11				1,350			
Menefee . . . . .		1,100				39,035				119				3,865				3				330			
Mercer . . . . .		5,628				154,140				845				28,085				22				2,765			
Metcalfe . . . . .		3,184				127,189				1,451				61,671				15				1,675			
Monroe . . . . .		3,150				131,555				1,374				61,890				16				2,605			

Montgomery . . . . .	1,863	51,051	372	10,460	21	1,845
Morgan . . . . .	3,115	131,576		39,594	12	1,215
Muhlenberg . . . . .	3,447	140,383	2,252	99,159	38	3,240
Nelson . . . . .	5,813	197,860	1,442	53,800	30	3,450
Nicholas . . . . .	5,086	132,995	586	15,665	35	3,430
Ohio . . . . .	6,927	305,855	1,934	95,277	14	1,760
Oldham . . . . .	3,164	109,420	724	29,155	9	1,050
Owen . . . . .	2,917	78,710	615	14,380	18	2,505
Owsley . . . . .	1,179	57,895	471	28,014	2	200
Pendleton . . . . .	6,356	175,015	275	7,310	4	275
Perry . . . . .	702	40,112	376	25,580	2	90
Pike . . . . .	2,598	149,395	1,268	91,035	5	525
Powell . . . . .	778	25,505	236	12,046	3	245
Pulaski . . . . .	5,553	214,082	2,388	102,665	44	4,080
Robertson . . . . .	2,185	58,880	67	1,710	1	50
Rockcastle . . . . .	2,693	103,828	735	31,750	11	1,115
Rowan . . . . .	1,232	47,917	349	16,078	4	242
Russell . . . . .	2,515	101,560	608	28,903	15	2,015
Scott . . . . .	3,367	133,867	973	29,840	34	3,325
Shelby . . . . .	6,969	183,800	1,191	41,540	35	6,605
Simpson . . . . .	3,327	119,514	1,888	67,691	39	5,060
Spencer . . . . .	3,731	62,481	502	9,664	8	975
Taylor . . . . .	2,643	86,677	1,035	36,294	10	1,125
Todd . . . . .	2,782	119,825	2,136	95,835	35	4,240
Trigg . . . . .	2,569	114,482	2,873	129,519	24	2,550
Trimble . . . . .	2,788	132,370	378	14,730	3	1,000
Union . . . . .	5,190	199,600	2,638	93,080	27	2,325
Warren . . . . .	8,690	333,713	4,235	180,377	106	10,005
Washington . . . . .	4,955	121,105	868	23,495	63	6,720
Wayne . . . . .	3,432	123,412	1,465	58,463	19	1,545
Webster . . . . .	3,849	132,566	1,406	56,925	28	2,940
Whitley . . . . .	2,586	118,698	1,826	98,286	9	755
Wolfe . . . . .	1,884	80,694	454	23,138	5	525
Woodford . . . . .	4,516	143,415	1,250	48,470	15	1,950
Total . . . . .	431,071	\$16,194,423	140,280	\$6,046,570	2,961	\$306,987



Christian	82	3,140	13	495	160	4,615	8,508	90,110
Clark	54	1,865	3	150	3	80	11,244	279,705
Clay	1	20					7,078	78,147
Clinton	19	1,415					3,194	39,132
Crittenden	9	230	6	118	27	330	7,701	77,247
Cumberland	3	55	3	50	2	30	4,898	48,649
Daveiss	4	40	14	415	57	1,278	9,757	113,012
Edmonson	2	20					5,773	60,648
Elliott	3	70			2	25	5,876	71,852
Estill	1	20					3,048	39,937
Fayette	48	1,125	24	675	394	9,450	6,824	142,875
Fleming	61	835			70	968	7,651	112,797
Floyd					3	50	8,270	84,962
Franklin	4	150	4	65	61	1,875	2,202	70,538
Fulton	15	375			11	220	3,061	28,525
Gallatin							1,712	27,828
Garrard		2,570	6	110	25	390	6,787	113,876
Grant	2	70	8	210	9	160	5,494	83,566
Graves	49	695	3	60	55	948	9,108	95,748
Grayson							9,332	97,254
Green	11	150	1	30	3	45	5,315	49,774
Greenup					2	85	5,077	56,955
Hancock	2	20	2	65			3,346	39,660
Hardin	17	405	10	260	19	375	10,982	133,817
Harlan	1	5	1	25			4,607	50,270
Harrison	21	555	7	135	47	900	7,172	110,905
Hart	11	231	1	15	7	173	8,056	113,210
Henderson	9	290	1	20	6	55	9,341	107,400
Henry	18	530	7	190	17	305	5,346	82,555
Hickman	33	860					3,102	32,730
Hopkins	53	1,365	2	25	9	150	8,433	74,180
Jackson	2	30					5,370	63,008
Jefferson	8	250	9	305	75	2,000	116,753	116,753
Jessamine	25	685	3	8	105	2,190	4,070	65,098
Johnson	3	55	1	35	76	939	7,343	86,386
Kerton					2	100	3,880	72,185
Knott	1	30					5,374	60,023
Knox	6	110	1	20			7,976	81,870
Larue	7	155	3	47	1	25	5,260	64,036

TABLE No. 1—Continued.

COUNTIES.	No. of Column on Recapitulation Sheet. . .	No. of Jennets. . .	Value . . . . .	No. of Thoroughbred or Standard Bulls .	Value . . . . .	No. of Thoroughbred and Standard Cows and Calves . . . . .	Value . . . . .	No. of Bulls, Cows, Calves and Steers of Common Stock . .	Value . . . . .
		33	34	35	36	37	38	39	40
Laurel. . . . .	. . . . .	. . . . .	. . . . .	1	20	. . . . .	257	7,600	85,596
Lawrence . . . . .	. . . . .	. . . . .	150	. . . . .	. . . . .	. . . . .	. . . . .	10,121	118,551
Lee . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	3,156	43,057
Leslie . . . . .	. . . . .	. . . . .	30	. . . . .	. . . . .	. . . . .	. . . . .	4,469	48,744
Letcher . . . . .	. . . . .	. . . . .	45	. . . . .	. . . . .	. . . . .	. . . . .	6,226	66,132
Lewis . . . . .	. . . . .	. . . . .	155	. . . . .	. . . . .	. . . . .	. . . . .	3,450	51,032
Lincoln . . . . .	. . . . .	. . . . .	7,550	35	1,295	198	3,145	7,452	119,125
Livingston . . . . .	. . . . .	. . . . .	335	3	105	25	500	6,991	74,310
Logan . . . . .	. . . . .	. . . . .	9,740	13	390	97	2,055	8,222	83,565
Lyon . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	4	80	4,685	43,105
Madison . . . . .	. . . . .	. . . . .	6,790	6	470	45	2,000	14,993	231,810
Magoffin . . . . .	. . . . .	. . . . .	63	3	75	1	40	6,809	72,115
Marion . . . . .	. . . . .	. . . . .	4,030	. . . . .	. . . . .	. . . . .	. . . . .	5,136	59,355
Marshall . . . . .	. . . . .	. . . . .	135	1	20	. . . . .	. . . . .	5,383	46,611
Martin . . . . .	. . . . .	. . . . .	20	. . . . .	. . . . .	. . . . .	. . . . .	3,381	34,625
Mason . . . . .	. . . . .	. . . . .	775	2	65	43	795	5,272	81,950
McCracken . . . . .	. . . . .	. . . . .	420	3	60	2	40	1,998	20,885
McLean . . . . .	. . . . .	. . . . .	360	. . . . .	. . . . .	. . . . .	. . . . .	4,638	43,972
Meade . . . . .	. . . . .	. . . . .	155	3	60	. . . . .	. . . . .	4,989	61,985
Menefee . . . . .	. . . . .	. . . . .	15	. . . . .	. . . . .	. . . . .	. . . . .	2,482	28,981
Mercer . . . . .	. . . . .	. . . . .	380	4	103	. . . . .	. . . . .	5,392	88,514
Metcalf . . . . .	. . . . .	. . . . .	380	3	75	. . . . .	. . . . .	5,153	53,935
Monroe . . . . .	. . . . .	. . . . .	495	5	90	. . . . .	. . . . .	6,192	56,675



Montgomery	23	425	2	50	15	245	4,509	88,428
Morgan	5	80	.	.	.	.	7,106	83,690
Muhlenberg	52	775	5	110	106	1,139	6,700	83,690
Nelson	36	1,550	9	200	29	725	8,756	123,336
Nicholas	27	580	2	50	10	215	5,145	72,510
Ohio	2	65	.	.	2	130	12,094	114,496
Oldham	12	400	.	.	.	.	5,754	88,675
Owen	10	385	1	25	1	20	2,787	36,265
Owsley	.	.	.	25	.	.	3,734	46,360
Pendleton	4	100	1	25	6	190	5,072	82,150
Perry	.	.	2	40	2	25	5,145	57,871
Pike	.	.	3	115	.	.	13,128	132,355
Powell	.	.	.	.	.	.	2,026	24,488
Pulaski	30	1,265	9	155	215	3,146	11,962	130,150
Robertson	.	.	3	10	3	30	2,235	27,960
Rockcastle	2	50	1	25	11	91	5,382	65,652
Rowan	4	60	.	.	.	.	3,530	45,138
Russell	9	560	.	.	.	.	4,511	48,561
Scott	42	1,125	4	100	20	420	5,136	96,383
Shelby	33	1,115	11	240	176	3,910	8,370	126,930
Simpson	51	1,655	8	236	29	453	4,327	41,772
Spencer	6	195	1	30	2	50	3,753	34,528
Taylor	2	15	5	80	8	105	4,089	41,507
Todd	37	1,315	.	.	.	.	2,519	25,555
Trigg	14	309	.	.	.	.	5,712	46,312
Trimble	.	.	.	.	.	.	3,201	46,975
Union	26	315	4	105	12	245	8,047	77,800
Warren	106	3,915	24	590	107	2,420	13,813	160,641
Washington	96	2,775	.	.	.	.	5,958	68,365
Wayne	13	340	1	25	6	68	9,060	87,341
Webster	54	820	7	150	13	205	4,141	36,788
Whitley	10	210	2	70	7	382	10,511	114,432
Wolfe	.	.	1	27	.	.	4,242	52,689
Woodford	20	750	1	25	.	.	5,225	86,950
Total	2,937	\$96,596	406	\$10,978	2,926	\$60,185	702,219	\$8,926,996



Christian . . . . .	7,858	11,175	26,772	86,675	37,605	5,985	69,260
Clark . . . . .	17,935	28,355	6,372	47,840	8,420	6,500	33,585
Cay . . . . .	6,022	6,938	15,863	35,857	3,341	85	9,570
Clinton . . . . .	4,729	4,745	8,649	18,956	6,324	744	10,239
Crittenden . . . . .	6,306	8,687	25,028	63,529	36,064	1,188	41,393
umberland . . . . .	4,454	4,491	11,769	30,239	6,612	2,159	13,859
Daveiss . . . . .	8,997	12,991	22,354	76,404	47,773	8,946	119,160
Edm-nson . . . . .	5,587	7,382	13,222	29,722	9,944	954	13,765
Elliot . . . . .	4,618	6,352	11,970	26,273	3,739	301	7,418
Estill . . . . .	1,973	2,700	5,336	16,118	3,650	190	6,690
Fayette . . . . .	12,669	23,100	8,438	38,050	10,975	42,558	96,725
Fleming . . . . .	8,401	11,525	16,754	59,893	21,570	6,299	48,959
Floyd . . . . .	7,777	8,265	17,004	28,867	858	990	26,650
Franklin . . . . .	5,438	11,032	7,371	33,113	11,910	7,560	12,664
Fulton . . . . .	1,170	2,120	7,389	32,942	16,470	640	32,210
Gallatin . . . . .	5,522	10,283	6,557	24,467	7,519	3,887	38,200
Garrard . . . . .	9,867	20,737	15,393	81,143	16,865	10	89,139
Grant . . . . .	16,134	27,037	12,303	42,391	18,842	2,427	26,050
Graves . . . . .	5,080	8,050	34,215	99,743	49,505	2,130	13,610
Grayson . . . . .	13,843	15,681	19,152	42,198	18,015	600	15,680
Green . . . . .	6,057	6,396	12,532	30,267	5,925	360	20,190
Greenup . . . . .	2,425	2,745	5,723	19,425	7,240	360	50,681
Hancock . . . . .	2,990	4,200	7,403	23,161	14,985	800	4,224
Hardin . . . . .	16,858	24,129	23,198	71,072	43,728	5,651	50,937
Harlan . . . . .	2,556	3,167	8,823	17,781	3,040	5,060	39,059
Harrison . . . . .	18,862	34,315	15,285	62,125	20,820	11,169	86,435
Hart . . . . .	9,333	11,979	22,900	55,826	17,621	57,480	22,513
Henderson . . . . .	3,706	6,435	27,636	85,060	44,165	6,890	34,095
Henry . . . . .	12,927	21,038	11,926	43,315	27,460	1,255	53,715
Hickman . . . . .	2,201	4,155	16,689	51,143	36,673	5	6,633
Hopkins . . . . .	5,997	7,015	23,506	50,510	25,900	1,210	537,848
Jackson . . . . .	5,307	7,150	9,908	24,537	4,673	365	31,115
Jefferson . . . . .	4,771	5,732	6,788	30,622	21,072	2,114	7,055
Jessamine . . . . .	12,195	18,938	8,474	44,250	14,280	2,114	171,365
Johnson . . . . .	4,323	5,450	12,275	29,640	5,083	204	4,066
Kenton . . . . .	7,905	15,940	1,293	7,065	150	1,813	12,629
Knott . . . . .	5,522	6,377	12,206	20,848	2,018	1,827	26,912
Knox . . . . .	6,241	7,404	16,466	38,384	8,161	1,813	26,912
Larue . . . . .	5,540	8,961	10,767	39,903	25,336	1,813	26,912

TABLE No. 1—Continued.

COUNTIES.	No. of Columns on Recapitulation Sheet.	No. of Sheep . . . .	Value . . . . .	No. of Hogs . . . .	Value . . . . .	Value of Agricultural Implements . . . .	Value of Agricultural Products for Taxation after Deducting Value of Crops Grown within the Year, and in hands of Producer . . . .	Value of Wagons, Carriages, Bicycles and Vehicles of every Kind . . . .
		41	42	43	44	45	46-7-8	49
Laurel . . . . .		6,634	8,831	11,628	27,286	7,848	453	16,779
Lawrence . . . . .		5,655	7,022	13,105	32,839	6,506	171	13,651
Lee . . . . .		1,611	2,308	5,570	13,673	2,927	78	4,447
Leslie . . . . .		2,659	3,282	8,229	15,291	867	40	2,525
Letcher . . . . .		6,372	7,094	13,793	23,775	4,271	359	7,269
Lewis . . . . .		3,847	5,910	4,946	17,482	6,310	970	21,183
Lincoln . . . . .		16,918	22,431	14,208	50,508	18,746	1,720	39,528
Livingston . . . . .		4,491	6,280	17,430	51,890	19,315	1,445	31,585
Logan . . . . .		8,149	11,140	25,436	82,900	37,675	1,445	59,970
Lyon . . . . .		1,650	2,206	13,996	30,837	10,038	621	18,996
Madison . . . . .		10,537	14,360	24,871	82,760	11,770	.	33,710
Magoffin . . . . .		6,703	6,098	12,852	23,799	3,196	265	5,045
Marion . . . . .		8,004	9,450	10,951	38,580	21,145	.	23,400
Marshall . . . . .		5,692	5,868	20,102	36,621	21,827	460	35,756
Martin . . . . .		1,561	2,273	5,714	10,730	1,438	19	1,177
Mason . . . . .		9,747	12,723	9,562	40,703	13,870	23,520	40,255
McCracken . . . . .		1,120	1,710	10,602	15,065	18,395	30	35,460
McLean . . . . .		4,102	4,650	16,364	39,255	25,815	.	30,810
Meade . . . . .		7,332	11,492	16,803	53,469	28,930	1,842	28,952
Menefee . . . . .		2,064	2,964	3,987	9,520	1,682	38	3,085
Mercer . . . . .		18,499	28,823	14,438	60,267	13,052	925	47,134
Metcalf . . . . .		6,344	7,468	14,707	31,429	15,572	5,988	21,944
Monroe . . . . .		7,478	8,090	14,575	34,730	8,620	1,515	20,820

Montgomery	4,238	4,607	2,641	12,097	1,480	925	14,765
Morgan	7,739	9,665	13,303	27,489	10,728	842	11,184
Muhlenberg	7,404	9,037	16,888	37,223	20,781	1,142	32,569
Nelson	15,581	21,715	22,495	80,060	24,285	2,355	53,485
Nicholas	12,487	17,630	10,881	38,105	16,470	1,505	27,690
Ohio	13,995	16,511	23,723	55,025	34,863	370	53,039
Oldham	13,241	19,195	4,609	22,540	15,210	.	25,835
Owen	10,303	17,050	4,609	20,280	14,060	2,405	20,305
Owsley	3,764	6,044	7,925	18,907	5,477	23	6,120
Pendleton	12,151	19,926	9,374	35,440	21,527	17,050	38,910
Perry	4,848	5,519	11,929	21,057	2,203	180	3,907
Pike	9,641	10,778	21,883	41,554	5,205	692	18,896
Powell	1,152	1,440	2,424	6,979	724	203	4,104
Pulaski	13,706	15,419	24,546	54,815	16,141	1,878	35,989
Robertson	3,443	5,715	3,718	12,822	5,750	1,435	8,065
Rockcastle	4,809	5,940	9,874	23,944	5,482	193	11,318
Rowan	2,525	3,060	6,066	15,125	5,132	684	8,542
Russell	7,155	7,069	12,887	28,684	5,523	810	13,629
Scott	21,771	39,107	9,800	43,130	14,657	15,780	34,763
Shelby	21,156	30,360	19,875	65,425	34,455	290	31,340
Simpson	3,356	3,618	18,427	54,436	16,141	2,149	33,509
Spencer	11,378	11,623	12,639	29,554	9,647	80	14,126
Taylor	4,745	5,844	8,467	22,418	9,933	45	16,767
Todd	2,914	4,105	10,481	34,880	24,935	.	39,770
Trigg	4,925	6,435	13,554	40,167	19,472	1,945	30,006
Trimble	4,588	8,295	5,823	23,461	14,575	535	25,087
Union	3,297	4,660	25,188	69,910	40,135	36,525	54,950
Warren	11,956	15,937	40,519	121,917	41,723	8,145	76,166
Washington	15,608	18,940	12,740	37,455	4,500	425	30,425
Wayne	12,791	12,137	19,850	37,664	9,528	1,050	15,368
Webster	3,644	4,187	18,676	33,653	21,111	7,259	32,362
Whitley	10,566	12,650	18,145	37,750	11,820	1,640	16,435
Wolfe	4,705	5,583	6,180	13,483	6,308	542	8,124
Woodford	8,893	15,715	8,341	41,555	27,840	35,135	50,030
Total	903,615	\$1,271,485	1,580,531	\$4,531,204	\$1,797,978	\$398,562	\$4,021,669





Christ an	1,745	18,450	2,035	282,415	17,950	22,735	8,925
Clark . . . . .		11,830	1,550	175,485	83,210	12,760	81,925
Clay . . . . .		8,033	675	69,300	363	3,118	
Clinton . . . . .		4,279	36	48,777	14,066	1,928	
Crittenden . . . . .	50	16,783	748	118,888	190	9,904	
Cumberland . . . . .	187	6,138	145	61,565	8,696	2,854	3,000
Daveiss . . . . .	1,538	34,892	4,970	435,181	36,488	48,242	48,965
Edmondson . . . . .	140	8,464	85	62,482	7,606	2,274	3,609
Elliott . . . . .	85	6,598	110	72,360	355	960	6,225
Estill . . . . .	40	3,875	120	36,778	8,370	2,885	1,640
Fayette . . . . .	25	2,325	9,125	393,975	210,150	42,200	11,550
Fleming . . . . .	55	9,018	1,190	146,290	9,890	9,298	7,600
Floyd . . . . .	100	8,271	568	54,646	410	2,045	
Franklin . . . . .	1,056	2,246	2,246	205,201	55,625	19,025	32,400
Fulton . . . . .		6,881	605	101,440	9,185	12,855	6,690
Gallatin . . . . .		3,900	50	122,500	1,355	5,175	
Garrard . . . . .	55	11,065	510	125,975	1,975	8,295	
Grant . . . . .	100	14,111	470	296,445	34,567	27,597	
Graves . . . . .	477	29,098	1,140	151,355	8,555	3,195	
Grayson . . . . .	122	14,963	430	64,135	1,710	7,415	
Green . . . . .		6,243	115	80,355	2,390	4,430	
Greenup . . . . .		8,645	220	197,368	2,345	10,750	1,020
Hancock . . . . .	45	6,295	275	82,993	371	1,383	
Hardin . . . . .	3,085	11,691	928	138,530	1,605	13,845	7,950
Harlan . . . . .	2,047	5,617	835	141,026	3,209	12,450	272
Harrison . . . . .	390	11,810	1,215	328,925	159,900	37,480	37,895
Hart . . . . .	25	15,893	160	121,670	380	11,630	500
Henderson . . . . .	180	24,390	2,255	84,761	14,755	17,080	2,130
Henry . . . . .	148	2,630	2,780	210,325	19,265	17,220	9,935
Hickman . . . . .	15	8,741	625	59,024	430	860	
Hopkins . . . . .		14,280	1,330	950,976	1,326,665	170,705	1,148,340
Jackson . . . . .	10	7,639	60	112,920	19,050	8,400	7,300
Jefferson . . . . .	22,280	13,930	65,857	79,853	4,269	3,792	162
Jessamine . . . . .	75	2,065	1,045	186,080	484,050	122,605	175,000
Johnson . . . . .	412	9,939	833	36,732	94	382	
Kenton . . . . .		35	195	172,839	2,804	8,783	24,231
Knott . . . . .		7,489	40	99,392	10,674	5,580	300
Knox . . . . .	40	16,860	382				
Larue . . . . .	50	10,729	750				

TABLE No. 1—Continued.

COUNTIES.	No. of Column on Recapitulation Sheet .	50	51	52	53	54	55	56
		Value of Slaughtered Animals . . . . .	Value of Sewing and Knitting Machines.	Value of Safes . . . . .	Value of Household and Kitchen Furniture . . . . .	Value of Manufacturing Implements—Machinery of all Kinds . . . . .	Value of Piano-forte and other Musical Instruments . . . . .	Value of Raw Material to be used in Manufacturing . . . . .
Laurel . . . . .		\$105	\$17,053	\$1,200	\$117,973	\$10,490	\$8,372	1,208
Lawrence . . . . .		298	14,028	1,491	139,228	12,540	11,705	3,280
Lee . . . . .			6,770	507	49,987	7,334	2,037	16,700
Leslie . . . . .		15	5,789	187	37,304	7,400		
Letcher . . . . .			8,970	229	47,014	617	1,694	40
Lewis . . . . .		15	5,850	250	70,102	1,395	9,415	11,455
Lincoln . . . . .		2,392	7,758	805	119,708	10,085	14,440	6,200
Livingston . . . . .			8,585	40	118,605	20,270	8,870	
Logan . . . . .			19,265	1,385	177,865	16,070	22,060	370
Lyon . . . . .		117	9,060	1,026	68,800	11,500	14,189	600
Madison . . . . .		70	14,630	1,460	187,300	130	15,960	14,700
Magoffin . . . . .		369	5,550	340	48,108	874	707	94
Marion . . . . .		365	970	1,570	94,270	8,640	8,215	4,510
Marshall . . . . .			13,820	1,471	90,767	11,717	7,303	1,417
Martin . . . . .		45	3,920	185	38,529	1,306	802	
Mason . . . . .		340	1,020	4,360	195,395	5,895	42,240	
McCracken . . . . .		75	4,020	6,350	116,160	15,970	17,985	5,085
McLean . . . . .			10,595	45	89,650		8,610	
Meade . . . . .		10	8,923	855	107,084	6,848	12,518	5,662
Menefee . . . . .		45	2,293	95	26,618	1,297	195	240
Mercer . . . . .		274	6,830	306	208,400	20,172	15,343	211
Metcalfe . . . . .		20	8,582	330	79,351	16,211	3,310	2,240
Monroe . . . . .			9,650	335	100,430	14,475	3,645	410

Montgomery	150	2,807	1,755	62,085	7,265	6,393	9,650
Morgan	188	9,742	220	105,069	2,847	3,850	229
Muhlenberg	1,605	16,204	2,893	148,190	13,010	12,069	17,720
Nelson	15	11,622	1,875	130,565	1,450	18,970	1,750
Nicholas		5,790	660	87,950	8,100	7,120	6,500
Ohio	30	19,502	1,153	216,281	1,735	10,750	
Oldham		510		73,145	1,850	9,945	
Owen	290	1,435		68,165	5,985	3,970	
Owsley		7,099	210	65,926	255	1,592	5,435
Pendleton	145	11,985	550	132,010	6,095	9,985	4,275
Perry		7,609	281	51,626	2,551	54	
Pike		16,003	1,149	125,510	2,855	3,182	1,695
Powell	18	2,756	390	23,048	30,963	2,383	1,994
Pulaski	220	22,388	2,425	200,845	21,354	21,300	9,352
Robertson	15	640	390	55,530		2,135	
Rockcastle	120	11,298	121	73,550	7,392	4,949	515
Rowan		5,170	475	51,985	14,290	2,986	12,175
Russell	40	7,375	70	70,637	5,006	2,406	3,013
Scott	460	11,570	2,240	183,090	16,170	13,585	175
Shelby	150	2,515	320	249,605	1,450	9,825	1,000
Stimpson	10	8,220	1,830	88,878	17,488	11,706	543
Spencer		3,558	50	41,683	8,010	3,125	200
Taylor	419	7,623	375	70,681	5,440	3,948	15,070
Todd		2,725	530	86,920	7,130		
Trigg	76	7,715	1,285	95,070	7,016		
Trimble		3,887	130	98,130		4,178	5,885
Union	250	7,870	1,180	126,140	11,850	7,275	
Warren	323	25,475	1,605	306,327	15,115	43,775	2,875
Washington		90	50	70,230	16,200	4,100	13,415
Wayne		6,392	225	57,035	11,425	3,070	
Webster	226	7,026	1,005	60,583	12,958	8,804	210
Whitley	36	21,192	1,835	147,579	31,355	11,859	1,045
Wolfe		6,514	325	52,963	645	2,960	13,610
Woodford		510	575	226,430	1,125	17,005	7,750
Total	\$54,195	\$1,073,124	\$228,619	\$14,819,376	\$3,526,881	\$1,472,736	\$2,044,668





Christian.	300	2	65	1	..	6,920	29	5,490	13,515
Clark	17,550	2	160	2	150	2,960	..	9,125	12,570
Clay	..	..	..	7	208	790	..	330	3,663
Clinton	..	..	..	..	583	583	..	..	2,698
Crittenden	..	6	130	2	75	1,030	3	365	7,310
Cumbe land	..	6	33	..	230	540	3	157	3,365
Daveiss	25,538	..	658	..	..	17,210	..	7,655	21,953
Edmonson	434	..	..	7	370	360	..	..	3,815
Elliott	975	..	..	20	..	190	1	20	3,369
Estill	120	..	..	1	12	25	..	..	2,033
Fayette	15,450	128	4,900	149	..	17,475	662	46,475	33,175
Fleming	750	3	140	18	1,050	2,650	5	480	6,822
Floyd	5	..	110	..	..	1,775	..	1,227	4,672
Franklin	35,108	2	980	..	..	8,792	..	7,560	9,008
Fulton	..	..	..	..	702	1,430	3	675	4,732
Gallatin	..	2	..	6	510	510	11	345	2,902
Garrard	..	9	70	..	..	2,490	..	1,230	7,432
Grant	30	11	75	16	1,784	1,430	15	790	8,690
Graves	2,367	1	113	..	..	6,880	..	3,910	18,137
Grayson	2,000	..	210	1	745	1,120	..	40	5,505
Green	..	..	..	..	290	565	..	186	2,187
Greenup	3,000	1	100	..	..	1,125	2	100	1,570
Hancock	..	..	..	..	275	1,235	..	20	1,905
Hardin	28	..	200	..	..	2,070	..	150	8,397
Harlan	5	..	..	..	714	..	..	..	2,889
Harrison	150	..	30	117	4,030	2,995	42	2,420	8,962
Hart	2,555	5	218	19	135	3,078	5	692	8,946
Henderson	41,240	..	150	..	..	14,975	..	6,805	19,405
Henry	75	..	..	..	..	3,670	20	1,020	4,365
Hickman	2,040	..	20	..	50	1,230	..	10	6,744
Hopkins	4,025	..	..	24	2,682	1,785	18	965	6,295
Jackson	..	..	..	6	106	400	..	..	2,970
Jefferson	1,013,935	..	28,165	..	..	58,590	..	67,185	82,748
Jessamine	2,400	2	50	11	..	2,090	31	2,325	5,629
Johnson	38	..	..	..	..	1,269	..	..	6,551
Kenton	44,550	..	..	Kent	..	250	9	900	460
Knott	..	..	..	Knott	..	3,495	..	..	2,831
Knox	65	..	45	Knox	..	2,523	..	20	6,143
Larue	5	..	5	Larue	..	700	..	..	6,280



Montgomery	2,000	..	..	..	10	..	..	..	..	2,675	..	..	..	1,674	4,077
Morgan	..	..	..	..	..	..	..	..	..	1,191	..	..	..	..	5,355
Muhlenberg	18,777	..	..	..	60	..	..	..	..	4,265	..	..	..	247	10,588
Nelson	475	..	..	..	155	..	2	100	..	3,550	15	..	..	7,495	12,847
Nicholas	700	..	..	..	..	..	17	1,405	..	1,680	25	..	..	740	3,375
Ohio	..	..	..	..	75	..	19	618	..	3,345	2	..	..	110	7,970
Oldham	..	..	..	..	200	..	..	..	..	1,445	..	..	..	1,075	4,070
Owen	200	..	..	..	..	..	..	300	..	100	4	..	..	375	2,355
Owsley	35	..	..	..	..	..	12	1,100	..	2,360	..	..	..	..	3,184
Pendleton	2,370	..	..	..	..	..	9	1,725	..	1,600	8	..	..	425	5,595
Perry	..	..	..	..	..	..	3	82	..	275	..	..	..	..	2,370
Pike	30	..	..	..	..	..	20	841	..	3,355	1	..	..	10	8,884
Powell	36,000	..	..	..	25	..	..	128	..	208	5	..	..	113	1,981
Pulaski	44,854	..	..	..	146	..	43	2,281	..	3,228	19	..	..	625	18,174
Robertson	..	..	..	..	..	..	..	..	..	535	..	..	..	110	783
Rockcastle	830	..	..	..	20	..	9	..	..	710	2	..	..	20	6,261
Rowan	21,440	..	..	..	1	..	9	475	..	455	6	..	..	785	4,154
Russell	..	..	..	..	15	..	4	..	..	1,292	..	..	..	..	3,567
Scott	5,100	..	..	..	335	..	..	..	..	2,120	69	..	..	6,940	11,061
Shelby	..	..	..	..	250	..	4	..	..	1,835	12	..	..	1,525	2,625
Simpson	250	..	..	..	45	..	70	2,950	..	2,215	308	..	..	540	5,962
Spencer	300	..	..	..	10	..	..	45	..	165	2	..	..	372	813
Taylor	7,000	..	..	..	..	..	..	..	..	130	1	..	..	100	3,157
Todd	..	..	..	..	20	..	14	485	..	1,925	34	..	..	1,890	3,485
Trigg	..	..	..	..	130	..	..	25	..	570	6	..	..	454	3,440
Trimble	..	..	..	..	..	..	..	..	..	250	..	..	..	50	3,194
Union	2,910	..	..	..	..	..	..	626	..	1,520	7	..	..	1,165	6,065
Warren	2,650	..	..	..	68	..	..	899	..	8,237	47	..	..	7,723	27,155
Washington	..	..	..	..	..	..	..	..	..	150	..	..	..	95	515
Wayne	1,200	..	..	..	10	..	9	100	..	1,090	..	..	..	..	3,073
Webster	270	..	..	..	..	..	..	..	..	1,391	..	..	..	200	4,829
Whitley	64,635	..	..	..	80	..	..	..	..	3,398	..	..	..	530	12,732
Wolfe	..	..	..	..	..	..	..	218	..	1,193	..	..	..	..	4,223
Woodford	2,000	..	..	..	960	..	39	..	..	4,875	230	..	..	13,705	11,315
Total	\$1,611,755	492	..	..	\$48,607	1,292	..	47,230	..	\$342,522	2,295	..	..	\$271,861	\$838,226

TABLE No. 1—Continued.

COUNTIES.	Nc. of Column on Recapitulation Sheet . . .						
		62	63	64	65	65	68
		Value of Jewelry .	Value of Gold, Silver and Plated Ware . . . . .	Value of Steam Engines, Including Boilers . . . . .	No. of Steamboats, Sail Boats or other Water-craft, or any Interest Therein . .	Value . . . . .	Value of Mineral Products . . . . .
							Value of Coal Mines, Oil, Gas and Salt Wells . . . . .
							Value of Patent Rights, and Value of Territory in which to Sell Same.
Adair . . . . .		\$164	\$1,159	\$11,700	.	.	.
Allen . . . . .		26	119	13,400	.	.	.
Anderson . . . . .		125	765	2,475	.	.	.
Ballard . . . . .		37	212	6,700	.	\$330	\$160
Barren . . . . .		115	708	6,660	.	.	35
Bath . . . . .		30	805	4,050	.	.	.
Bell . . . . .		691	978	31,150	.	.	.
Boone . . . . .		70	1,315	5,700	7	17,180	1,000
Bourbon . . . . .		1,060	5,515	2,355	.	.	100
Boyd . . . . .		2,602	4,351	34,382	12	8,478	1,000
Boyle . . . . .		1,460	5,839	5,850	.	.	.
Bracken . . . . .		300	325	12,600	8	5,850	.
Breathitt . . . . .		58	33	6,650	3	50	.
Breckinridge . . . . .		1,200	2,025	20,870	.	.	225
Bullitt . . . . .		540	1,383	11,025	.	.	2,350
Butler . . . . .		94	8	12,585	16	5,102	5,300
Caldwell . . . . .		17	1,153	10,850	.	.	.
Calloway . . . . .		77	362	11,514	.	130	.
Campbell . . . . .		870	950	32,575	.	500	.
Carlisle . . . . .		.	.	10,000	.	.	.
Carroll . . . . .		235	2,077	3,500	4	2,750	.
Carter . . . . .		220	497	16,375	.	.	50
Casey . . . . .		47	774	18,445	.	.	20

Christian	465	4,195	21,375	.	.	10	.	600	.	.
Clark	840	4,395	4,500	.	1	800	.	.	.	.
Clay	185	580	8,817	.	.	.	200	1,100	.	.
Glintn.	37	59	.	.	.	.	.	.	.	.
Crittenden	91	766	19,675	.	1	160	.	.	.	.
Cumberland	.	454	3,600	.	2	25	.	.	.	.
Daveiss	1,768	4,118	12,460	.	9	3,755	50	2,975	.	.
Edmonson	234	19	615	.	.	.	.	.	.	.
Elliott	23	.	10,390	.	.	.	.	.	.	.
Estill	15	80	6,880	.	1	1,500	.	.	.	80
Fayette	2,975	20,675	21,675	.	.	.	.	.	.	.
Fleming	15	3,640	12,845	.	.	.	.	.	.	.
Floyd	255	118	6,485	.	3	745	.	500	.	.
Franklin	2,565	6,271	10,450	.	2	3,600	125	.	.	.
Fulton	70	595	14,795	.	2	1,200	.	150	.	.
Gallatin	100	927	21,700	.	4	635	.	.	.	.
Garrard	345	2,645	7,250	.	.	.	.	.	.	.
Grant	255	561	15,550	.	.	.	.	.	.	.
Graves	306	759	13,220	.	.	74	.	.	.	93
Grayson	45	290	9,060	.	.	500	.	.	.	150
Green	90	150	5,250	.	.	.	.	.	.	.
Greenup	150	310	5,875	.	11	16,200	.	.	.	.
Hancock	75	560	5,835	.	16	7,450	.	1,500	.	25
Hardin	460	1,708	10,500	.	1	200	.	.	.	.
Harlan	15	5	500	.	.	600	.	.	.	.
Harrison	325	2,510	12,790	.	.	.	.	500	.	.
Hart	577	1,079	6,640	.	1	150	.	.	.	.
Henderson	1,510	4,770	20,075	.	4	18,525	2,300	7,400	2,000	.
Henry	380	1,770	8,100	.	2	90	.	.	500	.
Hickman	115	1,173	14,430	.	.	.	.	.	.	.
Hopkins	420	325	29,290	.	5	105	1,000	12,300	.	.
Jackson	5	.	5,400	.	.	50	.	.	.	.
Jefferson	15,890	40,960	237,010	.	1	99,395	20,280	27,700	3,200	.
Jessamine	295	2,208	13,025	.	.	.	.	.	100	.
Johnson	66	85	4,425	.	.	2,876	100	50	30	.
Kenton	48,525	5,650	4,500	.	.	151,000	.	.	.	.
Knott	5	218	2,000	.	.	.	.	.	.	.
Knox	219	558	17,850	.	.	.	.	.	.	.
Larue	.	172	5,800	.	.	200	.	.	.	.



TABLE No. 1—Continued.

COUNTIES.	No. of Column on Recapitulation Sheet. . . .	62	63	64	65	65	66	67	68
		Value of Jewelry . .	Value of Gold, Silver and Plated Ware .	Value of Steam Engines, Including Boilers. . . . .	No. of Steamboats, Sail Boats or other Water-craft, or any Interest thereir. . .	Value . . . . .	Value of Mineral Products. . . . .	Value of Coal Mines, Oil, Gas and Salt Wells . . . . .	Value of Patent Rights, and Value of Territory in which to Sell Same
Laurel . . . . .		\$355	\$782	\$20,160	. . . . .	\$45	\$150	\$15,600	\$700
Lawrence . . . . .		250	855	11,832	. . . . .	255	50	. . . . .	25
Lee . . . . .		36	225	15,480	1	40	800	1,350	. . . . .
Leslie . . . . .		. . . . .	. . . . .	1,200	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Letcher . . . . .		2	. . . . .	3,000	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Lewis . . . . .		310	510	10,400	6	5,825	. . . . .	. . . . .	. . . . .
Lincoln . . . . .		297	4,003	8,000	. . . . .	15	. . . . .	. . . . .	150
Livingston . . . . .		35	230	10,090	. . . . .	. . . . .	5,000	. . . . .	. . . . .
Logan . . . . .		145	1,385	17,530	. . . . .	750	. . . . .	. . . . .	30
Lyon . . . . .		368	537	6,150	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Madison . . . . .		910	3,400	4,950	. . . . .	. . . . .	200	. . . . .	25
Magoffin . . . . .		54	43	6,975	. . . . .	. . . . .	. . . . .	. . . . .	40
Marion . . . . .		. . . . .	1,400	1,200	. . . . .	. . . . .	. . . . .	. . . . .	10
Marshall . . . . .		105	30	7,610	28	988	. . . . .	. . . . .	. . . . .
Martin . . . . .		7	18	3,400	. . . . .	120	. . . . .	. . . . .	. . . . .
Mason . . . . .		395	1,110	9,180	2	3,250	. . . . .	. . . . .	. . . . .
McCracken . . . . .		235	2,150	17,571	11	51,160	. . . . .	. . . . .	. . . . .
McLean . . . . .		. . . . .	245	12,450	. . . . .	. . . . .	. . . . .	500	. . . . .
Meade . . . . .		50	1,388	29,000	19	1,815	. . . . .	20,150	. . . . .
Menefee . . . . .		. . . . .	10	3,445	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Mercer . . . . .		374	3,306	7,705	. . . . .	15	. . . . .	. . . . .	. . . . .
Metcalfe . . . . .		60	194	8,775	. . . . .	. . . . .	. . . . .	. . . . .	220
Monroe . . . . .		5	70	11,400	. . . . .	. . . . .	. . . . .	. . . . .	30

	215	\$1,758	6,680	.	700	.	.	.	.
Montgomery . . . . .	43	154	9,141	.	.	.	.	.	.91
Morgan . . . . .	196	1,190	1,430	.	2,055	600	3,630	.	260
Muhlenberg . . . . .	430	6,003	16,790	.	.	.	.	.	200
Nelson . . . . .	80	1,135	5,600	1	50	.	.	.	.
Nicholas . . . . .	30	410	35,575	3	2,105	.	29,720	.	.
Ohio . . . . .	390	2,295	4,550	.	.	.	.	.	300
Oldham . . . . .	40	355	3,600	.	320	990	.	.	.
Owen . . . . .	38	63	7,150	2	20	.	.	.	.
Owsley . . . . .	155	611	9,200	.	.	.	.	.	.
Pendleton . . . . .	.	.	5,200	.	.	.	.	.	.
Perry . . . . .	72	141	12,170	5	1,095	25	.	.	50
Pike . . . . .	228	211	5,287	.	.	.	75	.	27
Powell . . . . .	425	2,409	28,325	4	2,675	10	125	.	.
Pulaski . . . . .	.	165	1,850	.	.	.	.	.	175
Robertson . . . . .	43	324	10,420	.	.	.	.	.	.
Rockcastle . . . . .	73	84	15,750	.	.	.	.	.	.
Rowan . . . . .	264	446	8,735	3.	124	.	.	.	.
Russell . . . . .	925	7,475	8,671	.	.	.	1,200	.	.
Scott . . . . .	375	2,235	4,025	.	.	.	.	.	1,200
Shelby . . . . .	36	1,051	5,085	2	125	.	.	.	50
Simpson . . . . .	145	326	4,710	.	.	.	.	.	100
Spencer . . . . .	5	230	13,079	.	.	.	.	.	90
Taylor . . . . .	410	805	8,800	.	.	.	.	.	10
Todd . . . . .	85	698	8,800	.	.	.	.	.	.
Trigg . . . . .	25	525	8,535	.	.	.	.	.	.
Trimble . . . . .	140	835	16,790	10	4,100	1,200	30,000	.	36
Union . . . . .	579	5,979	19,825	3	1,570	.	.	.	30
Warren . . . . .	.	115	2,865	.	1,050	.	.	.	.
Washington . . . . .	30	145	4,650	.	.	.	300	.	.
Wayne . . . . .	25	30	14,210	.	800	.	4,455	.	36
Webster . . . . .	394	437	23,700	.	15	.	650	.	30
Whitley . . . . .	72	186	8,000	.	.	.	.	.	.
Wolfe . . . . .	700	11,685	6,550	.	.	.	.	.	.
Woodford . . . . .	.	.	.	.	.	.	.	.	.
Total . . . . .	\$100,411	\$218,493	\$1,494,589	212	\$431,297	\$35,482	\$179,260	.	\$10,252

TABLE No. 1—Continued.

COUNTIES.	No. of Column on Recapitulation Sheet.	69	70	71	72	73	74
		Present Value of Annuities and Royalties . . . . .	Value of Brick, Stone and other Building Material . . . . .	Value of Wines, Whiskies, Brandies and Mixt'rs thereof not in Distillery Bonded Warehouse	Number of Stores. .	Value of Stock of Goods and other Property therein .	Value of Property Held for another for the Purpose of Sale on Commission or otherwise .
		\$5					Miscellany — Value of all Property not Mentioned above .
Adair . . . . .			\$1,717	\$500	60	\$69,029	\$1,775
Allen . . . . .			168	60	52	37,525	6,104
Anderson . . . . .			135	3,990	57	66,965	11,785
Ballard . . . . .			785		48	51,305	1,590
Barren . . . . .			640	1,600	98	116,965	9,375
Bath . . . . .				890	65	55,185	15,355
Bell . . . . .				1,200	69	76,960	63,009
Boone . . . . .			500		59	74,150	1,550
Bourbon . . . . .			900		126	238,615	19,500
Boyd . . . . .			7,700	46,150	159	224,365	65,678
Boyle . . . . .			2,294	4,650	86	166,510	70,070
Bracken . . . . .				100	90	78,305	25,670
Breathitt . . . . .				825	34	46,475	4,222
Breckinridge . . . . .				200	93	133,340	26,375
Bullitt . . . . .		800	4,520	2,075	48	37,694	4,897
Butler . . . . .			175	2,500	62	64,342	10,166
Caldwell . . . . .			1,371		96	109,866	10,487
Calloway . . . . .			3,125	300	101	112,910	9,206
Campbell . . . . .			271	25	376	205,000	340,650
Carlisle . . . . .			1,100	17,450	43	54,055	900
Carroll . . . . .			1,500	414,490	81	86,805	25,980
Carter . . . . .					82	81,850	12,005
Casey . . . . .			1,696		56	50,647	1,978



TABLE No. 1—Continued.

COUNTIES.	N. o. of Column on Recapitulation Sheet. . . . .	69	70	71	72	73	74
		Present Value of Annuities and Royalties. . . . .	Value of Brick, Stone and other Building Material. . . . .	Value of Wines, Whiskies, Brandies and Mixt'rs thereof not in Distillery Bonded Warehouse.	Number of Stores . .	Value of Stock of Goods and other Property therein .	Value of Property Held for another for the Purpose of Sale on Commission or otherwise .
							Miscellany — Value of all Property not Mentioned above .
Laurel. . . . .		\$600	\$3,094	\$317	82	\$82,290	\$30,847
Lawrence . . . . .			908	60	75	98,120	26,142
Lee . . . . .		3,000			33	28,210	11,360
Leslie . . . . .		8,874			15	13,900	641
Letcher . . . . .			35		25	19,695	112,627
Lewis . . . . .			75	600	103	74,200	3,250
Lincoln . . . . .			150	1,870	87	132,200	425
Livingston . . . . .			300	30	67	76,515	700
Lyon . . . . .				1,000	110	125,160	6,720
Madison . . . . .			8	1,550	43	47,983	35,840
Magoffin . . . . .			2,270	303,610	149	213,850	7,490
Marion . . . . .			590	35	48	21,335	33,910
Marshall . . . . .			1,500	19,750	79	95,545	2,169
Martin . . . . .			2,036	1,060	89	56,060	12,990
Mason . . . . .			25		10	9,148	12,014
McCracken . . . . .				450	235	294,865	3,674
McLean . . . . .			1,900		259	668,445	59,850
Meade . . . . .			300	225	63	72,435	76,819
Menefee . . . . .			2,202	1,200	55	59,025	5,340
Mercer . . . . .			148		11	14,350	73,349
Metcalf . . . . .				1,840	95	125,097	
Monroe . . . . .			903	215	40	52,395	50
			5,360	2,325	46	67,575	321
							20,740



Montgomery	1,120	1,800	163,490	1,280	105
Morgan	2,804	258	35,030	518	13,521
Muhlenberg	1,410	150	98,470	765	10,746
Nelson	2,840	343,495	136,510	75,000	6,640
Nicholas	1,000	500	81,600	.	3,345
Ohio	4,050	127	139,325	298	105,893
Oldham	.	75	42,205	.	100
Owen	950	.	109,700	.	1,120
Owsley	1,212	.	13,670	.	4,708
Pendleton	400	3,955	74,855	125	7,299
Perry	20	23	26,065	300	28,032
Pike	270	85	113,372	75	24,956
Powell	650	28	18,975	1,188	555
Pulaski	1,009	138	123,213	100	68,361
Robertson	.	.	13,525	.	1,670
Rockcastle	3,700	48	34,150	.	718
Rowan	395	40	28,009	165	3,292
Russell	505	33	34,449	.	3,883
Scott	.	1,575	171,395	500	3,475
Shelby	.	6,856	143,350	330	12,650
Simpson	756	100	91,267	500	5,250
Spencer	.	80	20,125	.	325
Taylor	20	.	45,030	.	1,200
Todd	.	.	113,550	42,000	3,845
Trigg	.	325	71,570	200	17,307
Trimble	80	16,110	38,525	.	780
Union	1,100	.	176,620	50	18,645
Warren	17,900	950	303,030	350	35,987
Washington	.	800	60,565	.	700
Wayne	1,000	.	52,500	.	2,455
Webster	12,623	.	108,620	.	2,135
Whitley	2,517	287	116,200	385	51,900
Wolfe	5,175	106	40,780	15	8,951
Woodford	500	222,890	135,025	.	12,835
Total	\$16,884	\$3,282,116	\$18,989,617	\$260,035	\$9,353,825

TABLE No. 1—Continued.

COUNTIES.	Total Assessed Value of Personal Property not Subject to Equalization.	Total Assessed Value of Lands . . . . .	Per Cent. Added . . . .	Per Cent. Deducted. . .	Total Equalized Value of Lands . . . . .	Total Assessed Value of Town Lots . . . . .	Per Cent. Added . . . .	Per Cent. Deducted. . .
Adair. . . . .	\$275,703	\$979,558	5	. . .	\$1,028,536	\$98,010	. . .	9
Allen. . . . .	156,016	844,412	7	. . .	993,521	82,580	. . .	. . .
Anderson. . . . .	256,554	1,418,845	6	. . .	1,503,976	271,680	. . .	. . .
Ballard. . . . .	183,317	1,114,767	2	. . .	1,248,539	84,730	. . .	. . .
Barren. . . . .	398,277	1,762,929	20	. . .	2,115,514	393,440	. . .	. . .
Bath. . . . .	292,910	1,967,540	10	. . .	2,164,294	192,980	. . .	. . .
Bell. . . . .	146,783	860,812	15	. . .	. 989,383	907,061	. . .	. . .
Boone. . . . .	682,816	4,489,290	6	. . .	4,758,647	369,625	. . .	. . .
Bourbon. . . . .	1,270,616	8,890,952	. . .	. . .	8,890,952	1,674,807	. . .	. . .
Boyd. . . . .	954,594	928,132	6	. . .	983,820	2,014,812	. . .	. . .
Boyle. . . . .	1,531,155	3,508,558	. . .	9	3,192,788	1,311,480	. . .	10
Bracken. . . . .	1,277,710	1,809,310	17	. . .	2,116,893	408,920	. . .	. . .
Breathitt. . . . .	91,287	804,392	. . .	. . .	894,392	80,185	. . .	. . .
Breckinridge. . . . .	488,575	1,898,755	5	. . .	1,993,693	470,545	. . .	. . .
Bullitt. . . . .	325,016	1,270,192	8	. . .	1,371,807	116,055	. . .	. . .
Butler. . . . .	224,254	1,026,318	5	. . .	1,077,634	123,489	. . .	. . .
Caldwell. . . . .	395,891	1,511,661	. . .	. . .	1,511,661	463,560	. . .	. . .
Calloway. . . . .	866,380	1,430,426	2	. . .	1,459,035	226,087	. . .	6
Campbell. . . . .	279,823	3,404,935	10	. . .	3,745,429	11,643,602	. . .	. . .
Carlisle. . . . .	87,670	825,975	6	. . .	875,534	161,085	. . .	. . .
Carroll. . . . .	212,065	1,441,521	13	. . .	1,628,919	626,750	. . .	. . .
Carter. . . . .	148,376	997,232	. . .	. . .	997,232	102,650	. . .	. . .
Casey. . . . .	149,403	1,037,172	10	. . .	1,140,889	44,090	. . .	. . .

Christian . . . . .	984,090	4,524,430	4	4,705,407	1,688,030	6	1
Clark . . . . .	962,895	5,122,050	8	5,531,814	1,388,820		
Clay . . . . .	157,939	928,930	5	975,398	33,575		
Clinton . . . . .	108,296	489,031	10	537,934	29,090		
Crittenden . . . . .	346,775	1,436,749		1,436,749	278,750		
Cumberland . . . . .	227,745	765,001	10	833,801	49,502		
Daveiss . . . . .	1,074,455	5,057,935		5,057,935	3,639,895		
Edmondson . . . . .	106,198	650,837	4	676,870	23,125		
Elliot . . . . .	85,584	583,301		583,301	16,720		
Estill . . . . .	105,342	783,751	5	822,939	77,600	10	
Fayette . . . . .	3 269,600	10,614,975	2	10,402,676	11,238,875		1
Fleming . . . . .	635,623	3,262,232	6	3,467,966	529,581	5	
Floyd . . . . .	133,844	863,334	9	940,009	58,825		
Franklin . . . . .	373,005	2,393,385		2,393,385	2,138,010		
Fulton . . . . .	401,865	1,473,126	9	1,605,707	563,160	8	
Gallatin . . . . .	143,491	1,962,533	12	1,078,037	140,088		
Garrard . . . . .	562,303	2,831,966	2	2,888,605	333,285		
Grant . . . . .	404,105	2,109,616	26	2,658,116	322,985	5	
Graves . . . . .	1,014,217	3,221,595		3,221,595	918,662	6	
Grayson . . . . .	191,429	981,145	7	1,049,823	181,645	10	
Green . . . . .	122,625	703,307	3	726,466	60,890		
Greenup . . . . .	206,346	1,089,825	8	1,177,011	249,405		
Hancock . . . . .	109,932	1,045,881		1,045,881	168,605		
Hardin . . . . .	323,863	2,217,927	15	2,550,616	457,016		
Harlan . . . . .	137,052	994,341	6	1,054,001	48,804	15	
Harrison . . . . .	544,113	4,063,560	2	4,149,931	1,124,710		3
Hart . . . . .	582,145	1,609,744	10	1,770,718	162,708		
Henderson . . . . .	1,300,640	4,860,880		4,860,880	3,328,090	3	
Henry . . . . .	456,620	2,663,664	15	3,063,214	485,230	10	
Hickman . . . . .	333,358	1,812,861	2	1,849,118	275,671	8	
Hopkins . . . . .	469,235	2,037,125	12	2,281,580	869,680		
Jackson . . . . .	60,516	568,189	6	602,280	6,780		
Jefferson . . . . .	12,446,034	10,493,315	7	11,227,847	85,728,995		4
Jessamine . . . . .	458,215	3,308,869	6	3,507,401	573,150		
Johnson . . . . .	156,879	822,125	2	838,568	84,540	2	
Kenton . . . . .	1,706,100	4,497,910	3	4,632,847	23,259,744		
Knott . . . . .	91,415	588,146		588,146	17,510		
Knox . . . . .	195,203	1,018,291	7	1,089,571	216,280	4	
Larue . . . . .	209,743	1,260,467	12	1,411,723	144,027		

TABLE No. 1—Continued.

COUNTIES.	Total Assessed Value of Personal Property not Subject to Equalization	Total Assessed Value of Lands . . . . .	Per Cent. Added . . . .	Per Cent. Deducted . . .	Total Equalized Value of Lands . . . . .	Total Assessed Value of Town Lots . . . . .	Per Cent. Added <sup>a</sup> . . . .	Per Cent. Deducted . . .
Laurel . . . . .	\$263,217	\$1,024,350	5	.	1,075,568	191,703	1	.
Lawrence . . . . .	198,861	1,295,805	4	.	1,347,637	211,650	3	.
Lee . . . . .	74,559	556,853	.	.	556,853	146,585	.	.
Leslie . . . . .	82,958	553,831	9	.	603,676	20,875	.	.
Letcher . . . . .	91,957	668,518	13	.	755,425	14,675	.	.
Lewis . . . . .	178,585	1,546,343	2	.	1,577,270	255,095	5	.
Lincoln . . . . .	303,974	3,017,919	10	.	3,319,711	495,075	10	.
Livingston . . . . .	239,185	1,283,785	.	.	1,283,785	152,040	.	.
Logan . . . . .	677,020	3,114,695	6	.	3,301,577	603,660	.	.
Lyon . . . . .	165,939	709,770	.	.	709,770	154,995	.	.
Madison . . . . .	830,660	5,544,910	2	.	5,655,808	1,416,520	.	.
Magoffin . . . . .	84,205	666,540	.	.	666,540	28,635	15	.
Marion . . . . .	580,125	1,653,900	13	.	1,883,907	557,735	7	.
Marshall . . . . .	264,796	1,120,604	.	.	1,120,604	122,664	.	.
Martin . . . . .	48,092	483,889	5	.	508,083	42,845	.	.
Mason . . . . .	766,920	5,571,387	12	.	6,239,953	2,315,445	4	.
McCracken . . . . .	361,110	1,617,135	1	.	1,633,306	4,311,550	.	.
McLean . . . . .	281,510	995,830	10	.	1,095,413	197,220	.	.
Meade . . . . .	266,153	1,519,107	.	.	1,519,107	117,784	.	.
Menefee . . . . .	34,549	360,084	2	.	367,286	12,465	.	.
Mercer . . . . .	376,684	2,788,801	14	.	3,179,233	992,285	.	.
Metcalf . . . . .	193,069	793,558	5	.	833,236	35,653	.	.
Monroe . . . . .	238,390	833,535	8	.	900,218	60,285	.	5

Montgomery . . . . .	320,156	2,604,727	7	2,787,058	1,153,475	2
Morgan . . . . .	133,583	959,871	5	959,871	59,142	6
Muhlenberg . . . . .	161,884	1,101,436	10	1,156,508	364,972	12
Nelson . . . . .	1,272,792	3,411,625	12	3,762,788	516,335	10
Nicholas . . . . .	587,410	2,396,900	4	2,684,528	334,840	10
Ohio . . . . .	273,694	1,897,834	14	2,173,810	381,530	10
Oldham . . . . .	694,635	1,881,885	10	2,070,074	330,190	10
Owen . . . . .	860,585	2,422,520	11	2,688,997	293,230	8
Owsley . . . . .	68,800	525,524	2	536,034	35,010	10
Pendleton . . . . .	387,038	2,257,839	22	2,754,564	356,470	10
Perry . . . . .	80,829	589,836	22	589,836	13,750	10
Pike . . . . .	296,995	1,635,171	2	1,667,874	162,391	4
Powell . . . . .	91,093	351,377	11	390,028	75,685	5
Putaski . . . . .	314,867	1,614,044	5	1,694,746	655,977	6
Robertson . . . . .	112,228	654,063	10	719,469	83,995	6
Rockcastle . . . . .	138,062	612,006	2	624,245	79,265	10
Rowan . . . . .	81,380	391,562	4	391,562	74,555	10
Russell . . . . .	155,733	606,587	3	630,850	22,295	10
Scott . . . . .	693,811	5,479,976	3	5,644,375	1,242,720	10
Shelby . . . . .	937,605	5,608,200	3	5,776,446	726,935	10
Simpson . . . . .	344,031	1,361,391	7	1,456,688	426,547	7
Spencer . . . . .	249,406	1,236,036	13	1,396,721	82,247	10
Taylor . . . . .	83,717	576,779	20	692,135	137,315	10
Todd . . . . .	560,430	1,905,415	10	2,095,957	408,855	10
Trigg . . . . .	332,189	1,448,699	3	1,492,057	179,645	10
Trimble . . . . .	116,975	1,115,172	1	1,126,324	64,665	10
Union . . . . .	650,240	4,621,885	2	4,621,885	759,695	10
Warren . . . . .	1,792,554	3,982,141	14	4,061,784	2,171,820	10
Washington . . . . .	396,030	1,886,540	14	1,922,656	176,300	10
Wayne . . . . .	194,721	1,062,822	2	1,084,078	42,015	10
Webster . . . . .	493,309	1,646,571	10	1,811,228	390,025	10
Whitley . . . . .	323,781	1,349,469	10	1,484,416	281,621	10
Wolfe . . . . .	120,887	548,003	10	548,003	58,285	10
Woodford . . . . .	1,532,288	5,272,680	2	5,272,680	862,500	10
Total . . . . .	\$61,279,302	\$241,472,808		\$254,468,748	\$188,160,317	



TABLE No. 1—Continued.

COUNTIES.	Total Equalized Value of Town Lots . . . . .	Total Assessed Value of Personalty Subject to Equalization . . . . .	Exemptions . . . . .	Total Assessed Value of Personalty Subject to Equalization after Ded- ucting Exemptions. .	Per Cent. Added . . . .	Per Cent. Deducted . . .	Total Equalized Value of Personalty Subject to Equalization . . . . .	Grand Total Value of All Property as Assessed for Taxation after Ex- emptions have been De- ducted . . . . .
Adair . . . . .	\$89,189	\$648,743	\$382,341	\$266,412	5		\$279,722	\$1,619,673
Allen . . . . .	86,709	620,593	388,360	232,233	7		248,489	1,315,241
Anderson . . . . .	279,840	565,380	314,405	250,975	6		266,034	2,198,054
Ballard . . . . .	88,967	595,615	312,656	282,959	12		316,914	1,665,773
Barren . . . . .	472,128	943,020	501,076	441,944	20		530,833	2,996,590
Bath . . . . .	212,278	290,520	104,500	186,020	10		204,622	2,639,450
Bell . . . . .	997,767	668,679	187,793	480,886	15		553,019	2,395,542
Boone . . . . .	369,625	729,201	321,191	408,010	6		432,491	5,949,741
Bourbon . . . . .	1,674,807	1,204,338	109,639	1,094,699			1,094,699	12,940,074
Boyd . . . . .	2,014,812	995,458	362,759	632,699	6		670,661	4,530,237
Boyle . . . . .	1,180,332	892,102	162,441	729,661		9	663,992	7,080,854
Bracken . . . . .	470,258	384,350	198,010	186,340	17		218,018	2,682,280
Breathitt . . . . .	80,185	345,967	229,463	116,504			116,504	1,092,368
Breckinridge . . . . .	470,645	1,002,880	473,059	529,780	5		556,269	3,387,655
Bullitt . . . . .	116,055	477,633	243,262	234,371	8		253,013	1,945,534
Butler . . . . .	125,959	432,927	168,750	264,177	5		277,386	1,638,238
Caldwell . . . . .	488,196	737,000	380,253	376,747			376,747	2,747,859
Calloway . . . . .	212,522	843,313	523,454	319,859	2		326,256	2,342,752
Campbell . . . . .	643,602	1,332,910	262,830	1,070,080	10		1,177,088	16,398,440
Carlisle . . . . .	161,085	384,301	200,217	184,081	6		196,129	1,258,814
Carroll . . . . .	664,355	937,882	250,943	686,939	13		776,242	2,967,275
Carters . . . . .	102,650	524,433	301,930	222,503			222,503	1,470,761
Casey . . . . .	44,090	582,146	368,083	214,063	10		235,469	1,444,728

Christian . . . . .	1,688,030	1,556,405	654,625	901,780	937,851	8,098,330
Clark . . . . .	1,387,349	1,206,955	331,580	875,375	945,405	8,269,140
Clay . . . . .	284,635	284,635	284,635	171,162	179,720	1,291,626
Clinton . . . . .	29,090	287,981	179,361	108,620	119,482	735,037
Crittenden . . . . .	278,750	819,803	426,060	393,743	393,743	2,456,017
Cumberland . . . . .	49,502	386,457	223,407	153,056	179,855	1,198,298
Daveiss . . . . .	3,639,895	2,189,582	921,572	1,268,000	1,268,010	11,010,295
Edmonson . . . . .	23,125	361,392	236,156	125,236	130,245	908,396
Elliot . . . . .	15,720	280,323	253,767	126,556	126,556	811,161
Esull . . . . .	85,860	241,236	122,220	119,016	124,967	1,085,709
Fayette . . . . .	556,060	2,831,150	334,625	2,496,525	2,446,594	27,659,975
Fleming . . . . .	58,625	409,259	391,681	337,418	463,663	4,864,854
Floyd . . . . .	2,138,010	1,552,694	323,575	1,229,119	167,918	1,199,742
Franklin . . . . .	608,213	614,579	228,614	385,965	420,702	6,133,519
Gallatin . . . . .	140,088	273,380	124,294	146,976	166,976	2,824,116
Garrard . . . . .	333,285	746,223	302,167	444,056	452,937	1,395,198
Grant . . . . .	339,134	643,764	300,638	383,126	356,739	4,171,610
Graves . . . . .	973,782	1,762,100	902,104	859,996	859,996	3,119,832
Grayson . . . . .	199,810	733,532	500,070	233,462	249,804	6,014,470
Green . . . . .	60,890	376,644	252,758	123,886	127,603	1,587,681
Greenup . . . . .	249,405	438,040	285,810	152,830	165,056	1,012,708
Hancock . . . . .	168,605	413,456	224,839	188,617	188,617	1,698,406
Hardin . . . . .	457,016	1,080,189	543,488	536,701	617,206	1,513,035
Harlan . . . . .	56,125	229,726	165,679	64,047	67,890	3,535,507
Harrison . . . . .	1,124,710	932,441	440,835	491,606	501,438	1,244,244
Hart . . . . .	157,827	902,705	524,263	378,442	416,286	6,228,989
Henderson . . . . .	3,427,933	2,992,340	696,000	2,296,340	2,296,340	2,733,039
Henry . . . . .	533,753	674,619	299,580	375,039	431,295	11,785,950
Hickman . . . . .	297,725	599,340	237,875	361,465	358,694	3,980,553
Hopkins . . . . .	869,680	1,065,925	613,415	452,510	506,811	2,783,355
Jackson . . . . .	6,780	333,018	238,016	95,602	100,702	8,823,550
Jefferson . . . . .	82,239,835	19,566,235	701,519	18,864,716	20,185,246	730,487
Jessamine . . . . .	573,150	683,528	179,506	503,722	533,945	127,633,060
Johnson . . . . .	86,231	452,376	323,821	128,555	131,126	4,843,956
Kenton . . . . .	23,259,744	2,854,010	156,500	2,227,510	2,294,335	1,192,099
Knott . . . . .	17,510	346,401	182,523	163,878	163,878	81,691,264
Knox . . . . .	224,931	640,345	436,196	204,149	218,439	860,949
Larue . . . . .	144,027	619,517	306,335	313,182	350,764	1,633,923
						1,927,419

TABLE No. 1—Continued.

COUNTIES.	Total Equalized Value of Town Lots. . . . .	Total Assessed Value of Personalty Subject to Equalization . . . . .	Exemptions . . . . .	Total Assessed Value of Personalty Subject to Equalization after Ded- ucting Exemptions. . .	Per Cent. Added . . . .	Per Cent. Deducted. . .	Total Equalized Value of Personalty Subject to Equalization . . . .	Grand Total Value of all Property as Assessed for Taxation after Ex- emptions have been De- ducted . . . . .
Laurel . . . . .	\$193,620	\$631,800	\$356,932	\$274,958	5	.	\$288,706	\$1,754,228
Lawrence . . . . .	218,000	709,809	426,931	282,878	4	.	294,193	1,989,194
Lee . . . . .	146,585	272,951	151,658	121,293	.	.	121,293	899,290
Leslie . . . . .	20,875	196,333	37,154	159,179	9	.	172,505	816,843
Letcher . . . . .	14,675	407,767	219,128	188,639	13	.	213,162	963,789
Lewis . . . . .	267,850	415,410	204,128	211,282	2	.	215,508	2,191,305
Lincoln . . . . .	544,583	855,582	252,685	602,897	10	.	663,187	4,419,865
Livingston . . . . .	152,040	700,525	326,495	374,030	.	.	374,030	2,049,040
Logan . . . . .	603,660	1,135,335	579,450	555,885	6	.	589,238	4,951,260
Lyon . . . . .	154,995	427,277	235,696	191,581	.	.	191,581	1,222,285
Madison . . . . .	1,416,520	1,531,160	491,840	1,039,320	2	.	1,060,106	8,831,410
Magoffin . . . . .	32,930	324,934	247,414	77,520	.	.	77,520	856,900
Marion . . . . .	596,776	620,455	197,000	423,455	13	.	478,504	3,215,215
Marshall . . . . .	122,664	584,487	386,569	197,918	.	.	197,918	1,705,982
Martin . . . . .	42,845	151,116	118,671	32,445	5	.	34,067	607,271
Mason . . . . .	2,408,063	994,686	326,023	668,663	12	.	748,903	9,322,425
McCracken . . . . .	4,311,550	1,220,025	170,750	1,049,275	1	.	1,059,768	7,339,070
McLean . . . . .	197,220	557,137	276,448	280,679	10	.	308,747	1,755,239
Meade . . . . .	117,784	731,285	317,574	413,711	.	.	413,711	2,316,755
Menefee . . . . .	12,465	139,862	107,867	31,995	2	.	32,635	489,093
Mercer . . . . .	992,285	835,015	378,000	457,015	14	.	520,997	4,614,785
Metcalf . . . . .	35,653	513,470	296,813	216,657	5	.	227,490	1,238,937
Monroe . . . . .	57,271	570,935	308,775	262,160	8	.	283,133	1,394,370

Montgomery	1,176,545	447,992	108,357	359,635	7	384,809	4,437,993
Morgan	59,142	508,014	353,465	154,549	.	154,549	1,307,145
Muhlenberg	386,870	793,402	456,759	336,643	5	353,475	1,964,945
Nelson	516,335	1,348,098	343,170	1,004,928	10	1,105,421	6,205,680
Nicholas	374,461	547,010	282,905	264,105	12	295,798	3,582,755
Ohio	381,530	1,260,613	659,603	601,010	4	625,050	3,154,128
Oldham	330,190	447,715	168,080	279,635	10	307,599	3,186,345
Owen	316,688	409,605	156,300	253,305	11	281,169	3,329,640
Owsley	35,010	281,687	180,092	101,545	2	103,576	730,879
Pendleton	392,117	671,423	419,312	252,111	22	307,575	3,253,458
Perry	13,750	281,067	175,881	105,686	.	105,686	790,101
Pike	168,887	767,018	496,872	270,146	2	275,549	2,364,703
Powell	75,985	206,017	81,083	124,934	11	138,677	643,089
Pulaski	688,776	1,156,445	684,845	471,600	5	495,180	3,056,488
Robertson	89,035	200,270	141,193	59,077	10	64,985	909,363
Rockcastle	79,265	412,849	289,091	123,758	2	126,233	953,091
Rowan	74,555	304,570	163,936	140,634	.	140,634	688,131
Russell	22,295	376,991	241,582	135,409	.	140,825	920,024
Scott	1,242,720	881,575	306,305	575,270	4	592,528	7,991,777
Shelby	726,985	972,700	351,195	621,505	3	640,150	7,894,245
Simpson	456,405	592,661	320,001	272,660	7	291,746	2,404,629
Spencer	82,247	258,295	140,269	118,026	13	133,869	1,665,715
Taylor	151,047	396,726	250,857	145,869	20	175,043	943,680
Todd	408,855	619,295	212,430	406,805	10	447,486	3,281,505
Trigg	179,645	617,670	317,815	299,855	3	308,851	2,260,288
Trimble	67,898	447,034	227,840	219,194	1	221,886	1,516,006
Union	759,695	1,016,515	423,235	593,280	.	593,280	6,625,100
Warren	2,215,256	1,811,007	759,496	1,051,511	2	1,072,541	8,998,026
Washington	193,930	478,680	242,310	236,370	14	269,462	2,495,240
Wayne	42,015	494,066	294,650	199,416	2	203,404	1,498,974
Webster	409,526	572,971	217,315	355,656	10	391,222	2,885,561
Whitley	301,334	919,534	518,904	440,693	10	440,693	2,355,501
Wolfe	58,285	331,571	204,889	126,682	.	126,682	853,857
Woodford	862,500	1,260,970	296,680	964,290	.	964,290	8,631,758
Total	\$185,746,050	\$105,811,549	\$87,822,173	\$67,989,376	.	\$71,712,878	\$558,901,803



TABLE No. 1—Continued.

COUNTIES.	Grand Total Value of all Property as Equalized for Taxation . . . . .	Amount of Tax . . . . .
Adair . . . . .	\$1,673,150	\$7,110 89
Allen . . . . .	1,394,735	5,927 62
Anderson . . . . .	2,306,394	9,802 17
Ballard . . . . .	1,837,737	7,810 38
Barren . . . . .	3,516,252	14,944 07
Bath . . . . .	2,874,104	12,214 94
Bell . . . . .	2,687,502	11,421 88
Boone . . . . .	6,243,579	26,535 21
Bourbon . . . . .	12,940,074	54,995 31
Boyd . . . . .	4,623,887	19,651 52
Boyle . . . . .	6,568,267	27,915 13
Bracken . . . . .	3,082,879	13,102 24
Breathitt . . . . .	1,092,368	4,642 56
Breckinridge . . . . .	3,509,082	14,913 61
Bullitt . . . . .	2,065,891	8,780 04
Butler . . . . .	1,705,233	7,247 24
Caldwell . . . . .	2,752,495	11,698 10
Calloway . . . . .	2,364,193	10,047 82
Campbell . . . . .	16,845,942	71,595 25
Carlisle . . . . .	1,319,418	5,607 53
Carroll . . . . .	3,281,581	13,946 72
Carter . . . . .	1,470,761	6,250 73
Casey . . . . .	1,549,851	6,671 87
Christian . . . . .	8,315,378	35,340 36
Clark . . . . .	8,827,463	37,516 72
Clay . . . . .	1,346,632	5,723 19
Clinton . . . . .	794,802	3,377 91
Crittenden . . . . .	2,456,017	10,438 07
Cumberland . . . . .	1,290,403	5,484 21
Daveiss . . . . .	11,040,295	46,921 25
Edmonson . . . . .	936,438	3,979 86
Elliott . . . . .	811,161	3,447 43
Estill . . . . .	1,138,608	4,839 08
Fayette . . . . .	27,185,356	115,537 76
Fleming . . . . .	5,113,312	21,731 58
Floyd . . . . .	1,290,396	5,484 18
Franklin . . . . .	6,133,519	26,067 46
Fulton . . . . .	3,036,487	12,905 07
Gallatin . . . . .	1,528,592	6,496 52
Garrard . . . . .	4,237,130	18,007 80
Grant . . . . .	3,758,094	15,971 90
Graves . . . . .	6,069,590	25,795 76
Grayson . . . . .	1,690,868	7,186 19
Green . . . . .	1,037,584	4,402 73
Greenup . . . . .	1,797,818	7,640 73
Hancock . . . . .	1,513,035	6,430 40
Hardin . . . . .	3,948,701	16,781 98
Harlan . . . . .	1,315,068	5,589 04
Harrison . . . . .	6,320,192	26,860 82



TABLE No. 1—Continued.

COUNTIES.	Grand Total Value of all Property as Equalized for Taxation . . . . .	Amount of Tax . . . . .
Hart . . . . .	\$2,926,976	\$12,439 65
Henderson . . . . .	11,885,793	50,514 62
Henry . . . . .	4,484,882	19,060 75
Hickman . . . . .	2,848,895	12,107 80
Hopkins . . . . .	4,127,306	17,541 05
Jackson . . . . .	770,278	3,273 68
Jefferson . . . . .	126,158,962	536,175 59
Jessamine . . . . .	5,072,711	21,559 02
Johnson . . . . .	1,212,804	5,154 42
Kenton . . . . .	31,893,026	135,545 36
Knott . . . . .	860,949	3,659 03
Knox . . . . .	1,728,144	7,344 61
Larue . . . . .	2,116,257	8,994 09
Laurel . . . . .	1,821,111	7,739 72
Lawrence . . . . .	2,058,691	8,749 44
Lee . . . . .	899,290	3,821 98
Leslie . . . . .	880,014	3,740 06
Letcher . . . . .	1,075,219	4,569 68
Lewis . . . . .	2,239,213	9,516 66
Lincoln . . . . .	4,831,455	20,533 68
Livingston . . . . .	2,049,040	8,708 42
Logan . . . . .	5,171,495	21,978 86
Lyon . . . . .	1,222,285	5,194 71
Madison . . . . .	8,963,094	38,093 15
Magoffin . . . . .	861,195	3,660 08
Marion . . . . .	3,524,312	14,978 33
Marshall . . . . .	1,705,982	7,250 42
Martin . . . . .	633,087	2,690 62
Mason . . . . .	10,163,849	43,196 36
McCracken . . . . .	7,365,734	31,304 37
McLean . . . . .	1,882,890	8,002 28
Meade . . . . .	2,316,755	9,846 21
Menefee . . . . .	446,935	1,899 48
Mercer . . . . .	5,069,199	21,544 10
Metcalf . . . . .	1,289,448	5,480 15
Monroe . . . . .	1,479,012	6,285 80
Montgomery . . . . .	4,668,568	19,841 41
Morgan . . . . .	1,307,145	5,555 37
Muhlenberg . . . . .	2,058,747	8,749 68
Nelson . . . . .	6,647,336	28,251 18
Nicholas . . . . .	3,942,197	16,754 34
Ohio . . . . .	3,254,084	13,829 86
Oldham . . . . .	3,402,498	14,460 62
Owen . . . . .	3,647,439	15,501 62
Owsley . . . . .	743,420	3,159 54
Pendleton . . . . .	3,841,294	16,325 50
Perry . . . . .	790,101	3,357 93
Pike . . . . .	2,409,305	10,239 55

TABLE No. 1—Continued.

COUNTIES.	Grand Total Value of all Property as Equalized for Taxation . . . . .	Amount of Tax . . . . .
Powell . . . . .	\$695,483	\$2,955 80
Pulaski . . . . .	3,193,569	13,572 67
Robertson . . . . .	985,717	4,189 30
Rockcastle . . . . .	967,806	4,113 18
Rowan . . . . .	688,131	2,924 56
Russell . . . . .	949,703	4,036 24
Scott . . . . .	8,173,434	34,737 05
Shelby . . . . .	8,081,136	34,344 83
Simpson . . . . .	2,548,870	10 832 70
Spencer . . . . .	1,841,743	7,827 41
Taylor . . . . .	1,101,942	4,683 25
Todd . . . . .	3,512,728	14,929 09
Trigg . . . . .	2,312,742	9,829 15
Trimble . . . . .	1,532,583	6,513 48
Union . . . . .	6,625,102	28,156 68
Warren . . . . .	9,142,135	38,854 07
Washington . . . . .	2,782,078	11,823 83
Wayne . . . . .	1,524,218	6,477 93
Webster . . . . .	3,105,285	13,197 46
Whitley . . . . .	2,550,224	10,838 45
Wolfe . . . . .	853,857	3,628 89
Woodford . . . . .	8,631,758	36,684 97
Total . . . . .	\$573,206,978	\$2,436,129 66

TABLE No. 2—Showing Number of Acres of Land, Assessed Value of Land, Equalized Value of Land, Average Assessed Value Per Acre, and Average Equalized Value Per Acre, by Counties.

COUNTIES.	Number of Acres . . . .	Assessed Value of Land .	Equalized Value of Land	Average Assessed Value Per Acre. . . . .	Average Equalized Value Per Acre. . . . .
Adair . . . . .	232,037	\$979,558	\$1,028,536	\$4 22	\$4 43
Allen . . . . .	199,057	844,412	903,521	4 24	4 54
Anderson . . . . .	124,268	1,418,845	1,503,976	11 41	12 10
Ballard . . . . .	159,227	1,114,767	1,248,539	7 00	7 84
Barren . . . . .	284,219	1,762,929	2,115,514	6 20	7 44
Bath . . . . .	162,450	1,967,540	2,164,294	12 11	13 32
Bell . . . . .	228,302	860,812	989,933	3 77	4 34
Boone . . . . .	153,106	4,489,290	4,758,647	29 32	31 08
Bourbon . . . . .	179,362	8,890,952	8,890,952	49 56	49 56
Boyd . . . . .	84,236	928,132	983,820	11 01	11 67
Boyle . . . . .	109,200	3,508,558	3,192,788	32 12	29 23
Bracken . . . . .	123,966	1,809,310	2,116,892	14 59	17 07
Breathitt . . . . .	335,129	804,392	804,392	2 40	2 40
Breckinridge . . . . .	319,549	1,898,755	1,993,692	5 94	6 23
Bullitt . . . . .	175,708	1,270,192	1,371,807	7 22	7 80
Butler . . . . .	240,296	1,026,318	1,077,634	4 27	4 48
Caldwell . . . . .	198,535	1,511,661	1,511,661	7 61	7 61
Calloway . . . . .	234,039	1,430,426	1,459,035	6 11	6 23
Campbell . . . . .	89,712	3,404,935	3,745,429	37 95	41 75
Carlisle . . . . .	103,686	825,975	875,534	7 96	8 44
Carroll . . . . .	77,718	1,441,521	1,628,819	18 54	20 95
Carter . . . . .	229,577	997,232	997,232	4 34	4 34
Casey . . . . .	233,228	1,037,172	1,140,889	4 44	4 88
Christian . . . . .	404,890	4,524,430	4,705,407	11 17	11 62
Clark . . . . .	155,885	5,122,050	5,531,814	32 85	35 48
Clay . . . . .	257,709	928,950	975,398	3 60	4 78
Clinton . . . . .	110,240	489,031	537,934	4 43	4 87
Crittenden . . . . .	204,664	1,436,749	1,436,749	7 02	7 02
Cumberland . . . . .	141,347	758,001	833,801	5 36	5 90
Daveiss . . . . .	263,133	5,037,935	5,037,935	19 22	19 22
Edmonson . . . . .	183,540	650,837	676,870	3 54	3 68
Elliott . . . . .	137,531	583,301	583,301	4 24	4 24
Estill . . . . .	133,331	733,751	822,939	5 87	6 16
Fayette . . . . .	172,755	10,614,976	10,402,676	61 44	60 21
Fleming . . . . .	214,340	3,262,232	3,457,966	15 21	16 12
Floyd . . . . .	265,556	862,394	940,009	3 24	3 53
Franklin . . . . .	123,129	2,393,385	2,393,385	19 43	19 43
Fulton . . . . .	114,988	1,473,126	1,605,707	12 81	13 96
Gallatin . . . . .	60,711	962,563	1,078,037	15 85	17 75
Garrard . . . . .	134,780	2,831,966	2,888,605	21 01	21 43
Grant . . . . .	154,081	2,109,616	2,658,116	13 69	17 25
Graves . . . . .	333,349	3,221,595	3,221,595	9 66	9 66
Grayson . . . . .	287,447	981,145	1,049,825	3 41	3 65
Green . . . . .	136,774	705,307	726,466	5 15	5 30
Greenup . . . . .	178,860	1,089,825	1,177,011	6 09	6 58

TABLE No. 2—Continued.

COUNTIES.	Number of Acres. . . .	Assessed Value of Land.	Equalized Value of Land.	Average Assessed Value Per Acre. . . . .	Average Equalized Value Per Acre. . . . .
Hancock . . . . .	115,786	1,045,881	1,045,881	\$9 03	\$9 03
Hardin . . . . .	346,519	2,217,927	2,550,616	6 40	7 36
Harlan . . . . .	276,026	994,341	1,054,001	3 60	3 62
Harrison . . . . .	185,819	4,068,560	4,149,931	21 89	22 33
Hart . . . . .	241,388	1,609,744	1,770,718	6 66	7 33
Henderson . . . . .	263,515	4,860,880	4,860,880	18 44	18 44
Henry . . . . .	176,353	2,663,664	3,063,214	15 10	17 37
Hickman . . . . .	146,329	1,812,861	1,849,118	12 38	12 63
Hopkins . . . . .	313,864	2,037,125	2,281,580	6 49	7 27
Jackson . . . . .	189,367	568,189	602,280	2 00	3 18
Jefferson . . . . .	222,390	10,493,315	11,227,847	47 18	50 48
Jessamine . . . . .	105,972	3,308,869	3,507,401	31 22	33 09
Johnson . . . . .	157,546	822,125	818,568	5 21	5 31
Kenton . . . . .	96,548	4,497,910	4,632,847	46 58	47 98
Knott . . . . .	219,177	588,146	588,146	2 68	2 63
Knox . . . . .	193,406	1,018,291	1,089,571	5 26	5 63
Larue . . . . .	157,906	1,260,467	1,411,723	7 98	8 94
Laurel . . . . .	239,899	1,024,350	1,075,568	4 26	4 47
Lawrence . . . . .	240,790	1,295,805	1,347,637	5 38	5 60
Lee . . . . .	128,497	556,853	556,853	4 33	4 33
Leslie . . . . .	259,030	553,831	603,676	2 13	2 32
Letcher . . . . .	232,768	668,518	755,425	2 87	3 24
Lewis . . . . .	297,305	1,546,343	1,577,270	5 20	5 30
Lincoln . . . . .	195,320	3,017,919	3,319,711	15 45	17 00
Livingston . . . . .	192,295	1,283,785	1,283,785	6 67	6 67
Logan . . . . .	316,370	5,114,695	3,301,577	9 84	10 43
Lyon . . . . .	141,071	709,770	709,770	5 03	5 03
Madison . . . . .	261,638	5,544,910	5,655,808	21 19	21 61
Magoffin . . . . .	183,700	666,540	666,540	3 62	3 62
Marion . . . . .	188,502	1,653,900	1,868,907	8 77	9 91
Marshall . . . . .	201,503	1,120,604	1,120,604	5 56	5 56
Martin . . . . .	238,493	483,889	508,083	2 02	2 12
Mason . . . . .	148,738	5,571,887	6,239,953	37 45	41 94
McCracken . . . . .	152,202	1,617,135	1,633,306	10 62	10 73
McLean . . . . .	146,742	995,830	1,095,413	6 78	7 46
Meade . . . . .	190,388	1,519,107	1,519,107	7 97	7 97
Menefee . . . . .	108,503	360,084	367,286	3 31	3 37
Mercer . . . . .	151,559	2,788,801	3,179,233	18 40	20 98
Metcalf . . . . .	166,269	793,558	833,236	4 77	5 01
Monroe . . . . .	194,176	833,535	900,218	4 29	4 63
Montgomery . . . . .	113,253	2,604,727	2,787,058	22 99	24 60
Morgan . . . . .	234,981	959,871	959,871	4 08	4 08
Muhlenberg . . . . .	260,239	1,101,436	1,156,508	4 23	4 44
Nelson . . . . .	249,171	3,411,625	3,752,788	13 69	15 06
Nicholas . . . . .	120,917	2,396,900	2,684,528	19 82	22 20
Ohio . . . . .	339,976	1,897,894	1,973,810	5 58	5 80
Oldham . . . . .	116,046	1,881,885	2,070,074	16 21	17 83
Owen . . . . .	205,065	2,422,520	2,688,997	11 81	13 11

TABLE No. 2—Continued.

COUNTIES.	Number of Acres. . . .	Assessed Value of Land.	Equalized Value of Land.	Average Assessed Value Per Acre . . . . .	Average Equalized Value Per Acre . . . . .
Owsley . . . . .	118,083	\$525,524	\$536,034	\$4 45	\$4 54
Pendleton . . . .	164,737	2,257,839	2,754,564	13 70	16 71
Perry . . . . .	251,374	589,886	589,886	2 34	2 34
Pike . . . . .	664,412	1,635,171	1,667,874	2 46	2 51
Powell . . . . .	80,159	351,377	390,028	4 38	4 86
Pulaski . . . . .	394,713	1,614,044	1,694,746	4 08	4 28
Robertson . . . .	59,235	654,063	719,469	11 04	12 14
Rockcastle . . . .	175,200	612,006	624,246	3 49	3 56
Rowan . . . . .	178,329	391,562	391,562	2 19	2 19
Russell . . . . .	146,979	606,587	630,850	4 12	4 28
Scott . . . . .	177,434	5,479,976	5,644,375	30 88	31 81
Shelby . . . . .	232,042	5,608,200	5,776,446	24 16	24 88
Simpson . . . . .	139,892	1,361,391	1,456,688	9 73	10 41
Spencer . . . . .	116,687	1,236,036	1,396,721	10 59	11 97
Taylor . . . . .	151,761	576,779	692,135	3 80	4 56
Todd . . . . .	215,658	1,905,415	2,095,957	8 83	9 71
Trigg . . . . .	277,541	1,448,599	1,492,057	5 21	5 37
Trimble . . . . .	80,632	1,115,172	1,126,324	13 83	13 97
Union . . . . .	211,857	4,621,885	4,621,885	21 81	21 81
Warren . . . . .	315,586	3,982,141	4,061,784	12 62	12 87
Washington . . . .	176,212	1,686,540	1,922,656	9 57	10 91
Wayne . . . . .	308,484	1,062,822	1,084,078	3 44	3 51
Webster . . . . .	202,872	1,646,571	1,811,228	8 11	8 92
Whitley . . . . .	291,669	1,349,469	1,484,416	4 62	5 08
Wolfe . . . . .	160,321	548,003	548,003	3 41	4 41
Woodford . . . . .	118,311	5,272,680	5,272,680	44 56	44 56
Total . . . . .	23,479,124	\$241,472,808	\$254,468,748	\$10 28	\$10 83





Legislative Document No. 9.

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ELEVENTH ANNUAL REPORT

—OF THE—

INSPECTOR OF MINES,

—OF THE—

*STATE OF KENTUCKY,*

FOR THE YEAR 1894.

---

C. J. NORWOOD, Chief Inspector,  
W. U. GRIDER, Assistant.

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FOR GENERAL DISTRIBUTION.

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FRANKFORT, KY.:

PRINTED BY THE CAPITAL PRINTING CO

1895.



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## LETTER OF TRANSMITTAL.

---

*To His Excellency, JOHN YOUNG BROWN,*

*Governor of Kentucky:*

SIR: I have the honor of submitting the Eleventh Annual Report of this Office, covering the calendar year 1894.

It is with much satisfaction that I refer to the betterment of the condition of the mines generally, as shown in the appropriate sections of the Report. I trust that I may be pardoned for feeling that the record may be taken as a creditable showing for the work of this Office, as well as an indication of a more favorable disposition on the part of operators to obey the law.

To Mr. W. U. Grider, Assistant Inspector, is due much of whatever commendation the Office may receive. His zeal has been unremitting, and his work most excellent.

To Mr. B. W. Robinson, of Earlington, I am much indebted for a timely and admirable paper on the mapping of mines, prepared at my request. Mr. Robinson's long service as Mining Engineer for the St. Bernard Coal Co., and his experience with mines of other companies, have well fitted him for the preparation of such a paper. I trust that it will receive from mine operators and engineers the careful consideration that is its due.

To Mr. J. M. Hodge, of Big Stone Gap, Va., I am under particular obligations for a valuable contribution on the correlation of certain Kentucky and Virginia coals. No one is better equipped with actual experience in the particular region treated of, than is Mr. Hodge. His paper will prove of material interest to all who contemplate investing in our Eastern Coal-field.

The question as to the equivalency of the Elkhorn coal of Kentucky and the Imboden of Virginia is of much economic importance. If those coals are expressions of the same bed,



then our assertion of the existence of a large, uniform area of high grade, thick, coking coal in the upper Cumberland region is strongly fortified; if they are not, then the character of the area is questionable. The identity of the coals was announced several years ago, but no proof offered in substantiation thereof. Subsequently such correlation was, in effect, denied by Mr. Marius R. Campbell, of the U. S. Geological Survey. Mr. Hodge's paper is, I think, a satisfactory response to Mr. Campbell's objections, and in it is offered the first published proof of the identity of the Elkhorn and Imboden coals.

For yourself, Sir, I beg that you will accept the assurance of my gratitude for the confidence and friendliness you have manifested in and toward me, during my term of service under your administration.

I have the honor to be,

Your obedient servant,

C. J. NORWOOD,

*State Inspector of Mines, Etc.*

## I.

## PRELIMINARY.

Notwithstanding the difficulties presented by conditions that were produced by the long suspension at many of the mines, the work of this Office for the past year was more satisfactory than for either of the two immediately preceding ones. For the first time in several years, it has been possible to keep work in both field and office equally and fully up to the demand. Had mining operations permitted, had there been no strike, all mines would have been inspected not less than three times. This was rendered possible by the increase of the inspection force.

During the work of the year an important omission from the mining law was emphasized. There is no provision requiring an inquest by coroner's jury of fatal accidents that occur at the mines. It now rests with the disposition of the operator, or of some other interested person, to request the coroner to make an investigation. It would be possible, of course, for the Inspector to secure the holding of an inquest, by himself making the proper request, were he always immediately informed of the accidents, and in a position to at once go to the scene. But fatal accidents occur of which the Inspector knows nothing for thirty days, sometimes longer, and when absent from the office, visiting mines, he can not know in time even if prompt notification of an accident is sent. There should be a provision of law requiring that the Inspector shall immediately be notified upon the occurrence of a fatal accident, and that the county coroner shall be called to investigate it; the investigation to proceed whether the Inspector be present or not. The desirability of having fatalities investigated by coroner's jury is felt by the miners, and the wisdom of such a course is conceded, in some cases advocated, by a number of the operators.

### CURATOR OF THE GEOLOGICAL DEPARTMENT.

In his separate function of Curator of the Geological Department, the writer has attended to many calls for information concerning the resources of the State, received from intending emigrants as well as from persons interested in the mineral regions. In some instances it was necessary to prepare special reports on the questions inquired into. In addition, numerous requests have been received from citizens of the State for the determination of specimens of ore, etc., and they have been attended to. The correspondence of the Department has been large, aggregating between 500 and 600 letters received. Calls for maps are received almost daily. Unfortunately, the stock of State maps has so diminished that unless another supply is printed all will soon be gone. A bill was introduced in the last General Assembly to provide for printing another edition, but it was offered too late to make the journey before the termination of the session. A bill, introduced with the approval and encouragement of the Governor, to provide for the publication of the four manuscript reports in the office—on Warren, Livingston, Breckenridge, and Meade counties, respectively—shared the same fate, for the same reason. The disposition of the Legislature was understood to be favorable towards these bills, but the time was too short. Another edition of the State map should be printed, and the reports in question ought to be published. It is hoped that the next General Assembly will provide the necessary means.

It is significant that with respect to immigration the larger number of inquiries have come from the Northwest. In other respects, inquiries concerning cannel, petroleum, clays, and asphaltum rock have been especially numerous, and it is believed that the responses have been of service in determining investments. Considerable interest has also been manifested in stone; so much, that it is believed a special report on the structural stones of the State would prove of great value.

As a convenient means of response to the inquiries that are constantly being received concerning the general character of the Commonwealth's natural resources, a brief statement of them is given in this Report, as is provided for in section 5 of the mining law.

## II.

## GENERAL CONDITION OF THE MINES, ETC.

It is a pleasure to report that during the past year there was a more careful observance of the details of the mining law, than during any preceding one. There were but few instances in which resort to the courts was necessary.

There were ten fatalities in and about the mines, one of which was due to a boiler explosion, and one was presumably due to inhalation of powder fumes. In addition there was one death, on the first of the present year (1895), due to the shock following delayed amputation of a broken arm, the injury having been received while switching railroad cars two weeks before the operation. This death is not included among those attributable directly to "accidents."

The tonnage raised per inside fatality, 328,577, was greater by 28,370 tons than that raised per inside death in 1893.

Compared with the list for 1893, there was a decrease of two in the number of inside fatalities, and a reduction of three in the number due to falls of top.

A fair criterion by which to judge the care taken to maintain generally safe conditions in coal mines, may be found in the number of casualties due to falls of roof. Compared with the record for 1893—which itself marked an improvement on the past—that for the year 1894 shows a reduction of 9.61 per cent. in the total noteworthy accidents due to falls of top, and a reduction of 20.02 per cent. in the number of combined fatal and serious-non-fatal accidents due to the same cause. In 1893, 54.92 per cent. of the total noteworthy casualties, and 70.59 per cent. of the combined fatal and serious-non-fatal accidents were due to falls of top. In 1894, the percentages were reduced to 45.31 for the total accidents, and to 50.57 for the fatal and

serious-non-fatal accidents. In 1893, nearly 82 per cent. of the fatalities were due to roof-falls; in 1894, the proportion was reduced to a fraction over 66 per cent. The product raised per death from falls of top in 1893, amounted to 366,916 tons; in 1894, it was increased to 492,865 tons. These results compare favorably with mining experience in other States, where mining laws have been longer in force.

Compared with past records, the Southeastern District shows especially well with respect to fatalities due to falls of top, the number having diminished from 7 in 1893, to 2 in 1894. In the Northeastern District the number was 1 in 1894, against 2 in 1893. In the Western District, however, where there was but 1 fatal inside accident in 1893, and that one not from a fall of roof, in 1894 there were 4 inside fatalities, 3 of which were due to falls of top.

The decrease in the number of fatalities from falls of top in the Southeastern and Northeastern Districts may, at first, appear to have been due to the long suspension of work, from three to four months, at nearly all the mines in the Eastern Field, on account of the "sympathetic" strike. But such is not the true reason. It is a well observed fact that the roof of a mine that has long remained idle, without care being taken to protect it during the suspension, is, as a rule, more dangerous than when the mine is operating continuously; and that upon the resumption of operations extraordinary care is required to avoid accidents. The fact is that in most cases especial efforts were made to keep the mines in good condition during the suspension—which itself bears witness to the progress towards better methods in those Districts; and that there has been a positive increase of attention to the maintenance of the roof is a matter of observation by the officials of this Department. The three fatalities from falls of top in the Western District do not, upon investigation, indicate a retrogression in the methods of underground management there. They occurred at two mines which are not representative of the District, and two of them occurred under circumstances that clearly acquit the management of real neglect. Moreover, when the rush that characterized operations at many of the mines in the Western Field, including those in the largest mining county in the State,



during May and June, is taken into consideration, the fact that the accident rate was not abnormally increased must be regarded as a creditable showing.

But while the past year has witnessed a positive improvement in the care of the roof, the fact is patent that we are still having too many accidents from falls of top per tons of coal produced.

Following are brief fatality statistics for the year. All casualties are treated in detail in another chapter.

### FATALITIES FOR 1894.

DISTRICT.	Inside.	Outside.	Totals.
Western . . . . .	4	1	5
Southeastern . . . . .	3	. . . . .	3
Northeastern . . . . .	2	. . . . .	2
Totals . . . . .	9	1	10

Maximum number of persons employed . . . . .	11,089
Maximum persons inside . . . . .	9,235
Tons of product raised . . . . .	2,957,195
Tons raised per inside death . . . . .	328,577.22
Tons raised per death—in and out . . . . .	295,719
Maximum persons inside per inside death . . . . .	1,026
Maximum persons employed per death—in and out . . . . .	1,108
Percentage of deaths due to falls of top . . . . .	66.33

## FATALITY RATES BY YEARS.

YEAR.	Tons of Product Raised . . . . .	Fatalities Inside .	Tons Raised per Inside Fatality .	Maximum Persons Inside per Inside Death . . . . .
1888 . . . . .	2,384,893	14	170,342	. . . . .
1889 . . . . .	2,246,259	12	187,188	. . . . .
1890 . . . . .	2,532,526	9	281,391	. . . . .
1891 . . . . .	2,950,136	13	226,933	540
1892 . . . . .	3,027,298	5	605,459	1,527
1893 . . . . .	3,302,250	11	300,204	843
1894 . . . . .	2,957,195	9	328,577	1,026

## VENTILATION, DRAINAGE, ETC.

Efforts to secure steady improvement in the ventilative and drainage conditions were at many of the mines seriously interrupted by the long strike. In many of the mines which were inspected shortly before the strike and at which directions were given for the betterment of drainage and ventilation, water accumulated and air-courses became clogged during the suspension, so that when work was resumed they naturally were still more defective in those respects; hence a comparison of inspections made shortly before suspension and shortly after resumption apparently, though not really, indicate retrogression rather than improvement in the underground management.

A review of the inspection notices served during the year shows:

1. That while the roofs of entries were more carefully looked after than heretofore, a common cause of complaint was that fore-set posts were not systematically kept close enough to the working faces. In some instances the failure was due to carelessness of the miner; in others to procrastination on the part of the operator's representative to furnish posts. In some-

instances it was clear that lack of propping in rooms was largely due to the fact that the delivery of props at the working-places depended upon the miners themselves—that each miner was compelled to go to the stock pile at the mouth of the mine and load his posts into the bank-car himself. Such a rule is not only an imposition upon the miner in most cases, but encourages dangerous procrastination in the setting of props.

2. That the principal complaint in the matter of ventilation generally related to a failure to send the air systematically through the rooms, so as to keep within proper distance of all working-faces. That not infrequently where care was taken to secure an ample volume of intake air, there was a failure to thoroughly distribute it; it was too often allowed to travel entries when it ought to have been traveling rooms. That frequently while the larger number of rooms on an entry would, perhaps, be found well ventilated, there would be others in the same range that were driven entirely too far beyond the air, or through which no current at all was passing. That in some cases defective ventilation was attributable not to neglect or ignorance on the part of the bank-boss, but to mistaken economy or ignorance on the part of the managers with reference to the material used for check curtains. Also, in many cases, that while instructions would be fairly well carried out with reference to the workings as they stood at the time the instructions were given, the ventilation of subsequently opened workings would be ill-cared for until the Inspector should make a return visit. And thus it is that complaints often relate not to the workings as they stood at a previous inspection, but to ground subsequently opened. Here is a weak point in the law. It is weak in that it is not clearly set forth that a notice to comply with its general provisions given after one inspection, shall also serve for ground that is opened subsequent to that inspection. The law now provides penalties for failure to comply with the directions of the Inspector, with reference to conditions he may discover at the time of making a certain inspection. Were specific penalties provided for violation of the *requirements of the law*, when discovered by the Inspector, the law would doubtless be more effective. It may be thought, however, that under some circumstances such a provision might work an injustice, and in indis-

creet hands prove dangerous to the real welfare of those most interested.

3. That while in general more attention has been paid to drainage—that while the mines in general are better drained than at any time heretofore, although in many cases the natural difficulties have increased—there is still too much cause for complaint on account of undue accumulations of water. This is particularly true of mines in the Eastern Field. Inadequate primitive or ill advised methods too largely prevail there. There is too little flexibility of method; there is too great a disposition to cure all cases with a single remedy, the water ditch. When practicable, there certainly is no method less expensive or more satisfactory than that of ditching, but none more expensive when wrongly applied. It may be, however, that often the mine managers are less to be criticised on account of failure to use adequate methods than are the mine directors. So much has been written about coals “above drainage,” and coals high in the hills and “thus with natural drainage,” in our Eastern Field, that some of those familiar only with the financial end of mining may deem the use of pumping machinery, or of elaborate siphon systems, mere extravagance in such a region. Attention has heretofore been called to the errors that have been published with respect to finding “water-free” coals in the Eastern Field; few such coals have yet been found, and it is unnecessary to enter further into the matter now.

### SPECIAL IMPROVEMENTS.

Ten new furnaces were built and five new fans were set up during the year, at the following mines:

*Furnaces.*—Empire, Christian county, (used in addition to the fan); New Holland, Daveiss county; Oak Hill and the Co-operative, Hopkins county; White House, Johnson county; Peacock, Laurel county; Beattyville No. 1, Lee county; Mud River, Muhlenberg county; Alpine No. 6, Pulaski county; Dowlais (temporary), Whitley county.

*Fans.*—Baskett, (replaced old one), Henderson county; Earlington No. 9, (an additional one), Hopkins county; Grinstead (2), and the Central Jellico, Whitley county.



*Safety Appliances.*—New safety-catches, safety-gates, and a new cage were added at the Nall mine, Daveiss county; safety-catches and cover were added to the cage, and brake attached to hoisting drum at the Rankin mine, Henderson county; safety-catches were added to the cage at the Powderly mine, Muhlenberg county.

Other noteworthy improvements, in the way of equipment, etc., which are stated in detail in "Notes on the Mines," were made at the following mines: Avent, Beattyville, Bryant, Cogar Creek, Corydon, Crabtree, Conn, Cumberland, Davidson, DeKoven No. 9, Earlington No. 9, Echols, Hecla, Hillside, Indian Creek, Manchester, Mary Hull, Madisonville, Memphis, Oak Hill, Pierce, Powderly, Rankin, Star Furnace, Sturgis, Taylor, Union, Welch.

### INSPECTIONS MADE.

The systematic plan of inspection which had been laid out for the year was disarranged by the long strike. Some mines suspended just after they had been inspected and others were stopped just before or on the day that they were visited. Upon the resumption of work, such mines needed immediate attention, which, happening in the autumn, prevented other mines being visited at the time they otherwise would have been. There was not time in which to complete another round before the year closed. Notwithstanding this, however, we were able to nearly double the number of visits that were possible in 1893, the total number of visits being 300 in 1894, with 138 mines, against 156 in 1893, with 121 mines. But each visit did not always result in an inspection; occasionally it was fruitless in consequence of the mine being idle, and there were instances in which a mine was visited three times before it was found running, so that an examination might be made under proper conditions. As a rule, little good is accomplished by inspecting a mine when it is idle. Some operators have two or more mines close together, though quite distinct from each other—each one requiring an inspection on its own account. If the visits to such collieries are to be classed as only one "separate visit," then 278 separate visits were made. The



visits were distributed between the two coal fields as shown in the following statement :

BY WHOM.	Eastern Field.	Western Fie'd.	Total.
Chief Inspector . . . . .	21	56	77
Assistant Inspector . . . . .	120	81	201
Totals . . . . .	141	137	278

The records show that 230 formal Inspection Notices were served, 170 by the Assistant Inspector and 60 by the Chief. It may be well to state, as a reason for the smaller number of inspections made by the Chief, that practically all of the office work is cared for by him ; this has grown to proportions little understood by those not acquainted with it. Under present arrangements there will be no difficulty, in the ordinary course of mining operations, for this Office to meet all reasonable expectations.

Referring to the formal Inspection Notices, the following statement was made in the Report for 1893 :

“Hereafter only a summary of each Notice will be given. With the additional force of the Department, the number of Notices served each year will be so greatly increased that to give them *in extenso* will add too much to the bulk of the Report, and, perhaps, serve rather to confuse than to enlighten.”

Accordingly, the summary of so much of each Notice as is of present interest will be found in the proper place in the chapter, “Notes on the Mines.”

### MISCELLANEOUS.

*Shooting on the Solid.*—The danger of shooting on the solid, especially in narrow work, to which attention has been called in preceding Reports, was recently emphasized in a lamentable way in the Tate Slope, Union county. There an explosion occurred in January of the present year (1895), by which five men were killed, the primary cause of which unquestionably was a heavy charge fired on the solid.\*

\* This disaster, having occurred subsequent to the period covered by this Report, belongs to the record for 1895, and will be fully described in the proper Report. It may be remarked that, contrary to some theories industriously circulated, fire-damp was not the cause nor even a significant promoter of the explosion.

Not only is there danger from blown-out shots, or elongated flames due to the necessarily heavy charges, setting fire to coal dust, thus bringing about an explosion, but falls of top are often caused by the repeated shocks that follow the heavy blasts. The "shaking up" given the roof with each blast is cumulative, and finally results in falls at places where they were not expected.

*Coal Dust.*—The dangers that lurk in dry coal dust are now pretty well admitted by all observant mining men, and the question of guarding against them—which for long has been treated with so little attention in this country as to approach indifference—has become become a matter of recognized moment. The following suggestions made by Mr. D. H. F. Mathews, H. M. Inspector of Mines, in a paper on "Damping Coal dust in Mines," read before the Manchester, Eng., Geological Society, are given as reported in the "Colliery Guardian:"

"He said the information placed before them in the Royal Commissioner's report on the effect of coal dust in mines, and the reports of inquiry with reference to the explosions in mines, and the personal observations of many of their members, should be sufficient to convince them, one and all, of the dangerous character of coal dust in mines under certain conditions and considerations. Suffice it to say that coal dust was dangerous in its dry condition, but that if it be damped no danger was likely to be met with from it under any circumstances in colliery operations. The ventilating currents in traveling round the workings of collieries had their capacity for moisture increased, and to fill up this increased capacity for moisture, or to 'quench their thirst,' they absorbed moisture from every thing with which they came in contact. Hence the necessity for replenishing them with a fresh supply as their capacity for it was increased. The most popular, if not the only means that had been adopted for counteracting this drying power and damping the dust were the application of salt, steam and water. The effectiveness of salt was very limited, and could, in the extreme cases of steam coal collieries, be of but very little service. The application of steam had also been found to work well only within certain limits. The most rational means for

adoption seemed to be the application of water. Although many ingenious contrivances had been suggested, and were in operation for watering the roadways by tanks or casks, they had all one defect, viz: They gave water intermittently while the demand was constant. They would, however, be of great service in by-roads, where the ventilating current was feeble. The methods which seemed to be the most perfect for damping the roadways at present were the spray system of water alone and the spray system in conjunction with compressed air.

“With regard to the spray system of water, in some mines perfect saturation of the atmosphere was obtained, in which the mere pressure of water was sufficient to produce a spray. This system was in operation at one of the steam coal collieries with which the writer had been connected, where the roads at present are watered to the extent of 5,960 yards, with sprays every forty to sixty yards apart. The cistern was fixed in a landing in one of the upper seams, and the pipe taking the water down the shaft from the cistern to the pit bottom was four inches in diameter; the distance being 480 feet gave a pressure of 208 pounds per square inch. The pipes branching east and west at the bottom of the pit were one and one-half inches in diameter, and were laid along the side of the roadways. As the main roads near the pit bottom were rather wide, the hose was used occasionally for that part, and about 100 yards from the pit bottom the spray system commenced. A stand-pipe of three-fourths inch bore every forty to sixty yards was attached to the main water pipe by a reduced T-coupling, and was erected vertically from the main water pipe for about three feet in length, and a small angular pipe was fixed at the top of the stand pipe, in the mouth of which a little lead had been melted for nearly an inch distance, and a small hole made through the lead by driving a fine steel drift through it. When the spray was started, if it was found too coarse, it could, by simply tapping the face of the lead with a hammer with an egg-end face, be made as fine as required, and damped the roadway, the distance varying according to the velocity of the air-current passing, so that the higher the velocity the further, as a rule, would the spray be carried, and the mist produced was so fine that it could be distinctly seen with an ordinary

lamp carried along in the air for a considerable distance before it reached the ground. The mist had done no harm of any consequence to the side, roof or floor of the collieries, but had the effect of cooling the air, the average temperature in one colliery being reduced four to five degrees on the introduction of water for damping the road-ways. In some collieries lead plugs were screwed into the stand pipes, instead of melting the lead, and there were many other patent sprays in the market. The sprays were forty to sixty yards apart up to the far end shunts, where a tap was fixed from which water might be taken to the by-roads in casks or tanks when required, and was also obtainable for horses or ponies working in the district. The water man—as he was called—was able to attend to the whole length of pipes and to turn on water to each district and stop it when required at a junction of the pipes.

“The spray system in conjunction with compressed air was an improved modification of the pipe system. This system had, in addition to the water pipe, another pipe for carrying compressed air, which was mixed with the water and formed a spray, finer, perhaps, than could be made with water alone, certainly so when the pressure of water was low; and the system had a considerable advantage over the system of water alone where compressed air was convenient, and a high pressure of water not obtainable. Indeed, it was only necessary for the water to have sufficient pressure when throttled down to find its way into the chamber where the compressed air met it and drove it out. Mr. Martin, the general manager of the Dowlais colliery, Glamorgan, and Mr. Turnbull, mechanical engineer, brought out a patent for the most perfect system the writer was acquainted with, producing spray or mist of exceeding fineness in conjuncture with compressed air. The spray or mist could be made so fine that it was carried by the ventilating current to the roof, sides and floor, and so damped the finest dust lurking behind timbers, and indeed all parts of the roads which the current touched. The cooling influence of the sprays when working was quickly detected, and the distance to which the moisture was carried varied with the velocity of the ventilating current. At one colliery where this system was in use the pressure of the compressed air was 45 pounds per square inch,



and of the water 90 pounds per square inch. The water was throttled to suit the spray, and the compressed air was taken from one of the mains for supplying a pump and a small hauling engine which was working 1,000 yards further to the dip. The water was brought from a cistern fixed in the pit shaft, as in the method already described. The object of having 90 pound pressure for the water to meet the pressure of the compressed air at 45 pounds per square inch, was to enable the damping to be continued by water alone should any accident occur to the air-compressing machinery or pipes, and the supply of air have to be stopped for a time. In case of using dirty water if the spray-producer became choked, it could be 'flushed' in an instant and set to work again."

*Firing at Any Time.*—For several years I have been protesting against the practice, permitted if not encouraged at some mines, of firing shots indiscriminately throughout the day; especially when the method of single-current ventilation is followed. My objections are based on the fact that the products of a powder explosion are not only deleterious to the general health of men, but positively dangerous to life. As has hitherto been stated,\* when blasts are fired indiscriminately throughout the day, the workings are kept filled with the resulting gases, and the best efforts at ventilation are rendered well nigh, if not altogether, ineffective.

In a paper on the "Causes and Prevention of Death by Suffocation in Mines," read before the British Association, Dr. J. S. Haldane, thus bears witness to the dangerous character of powder fumes:

"White-damp is another mixture of gases found in mines. The distinguishing character of white-damp is that it may have fatal effects on a man and yet not extinguish a lamp. For this reason it is much feared. As to where it comes from and what it is there is the usual lack of satisfactory information. One point, however, which seems to be clear is that it may originate from blasting with powder. Now analysis shows that there are two intensely poisonous gases in the products of a gunpowder explosion—namely, carbon monoxide and sulphuretted hydro-

\* Report of this Office, 1893, p. 13.



gen. Moreover, the gases from 'mining' powder, which is a cheap powder, containing a low percentage of nitre, contains far more carbon monoxide and sulphuretted hydrogen than the gases of other powders. Carbon monoxide is poisonous, and may produce death when present in the proportions of about .25 per cent. in air. Sulphuretted hydrogen is still more deadly in its action. One-twentieth (.05) per cent. has been shown to produce marked symptoms of poison in man; and one-tenth per cent. would almost certainly produce death if breathed for a short time."

Happily, the practice of firing at any time has in most instances when first noted been abandoned, but there are mines still where, though nominally "against the rules of the company," it still obtains.

It is difficult to deal with this matter as the law stands.

*The Ventilating Furnace.*—In many of the mines the duty of firing the ventilating furnace is laid upon the track-layer, and at most of them it appears to be the custom for him to attend to it only twice a day—early in the morning and at noon. This is better than having no fire, but is nevertheless a poor makeshift—working a hardship not only on the miner but often on the track-layer. Certainly, under such an arrangement a mine may, for the larger part of the day have practically no ventilation in the remoter parts.

Instances have been noted in which no fire was kept in the ventilating furnace on days when there was no output, no matter how many men might be underground, "making" coal or performing other labor. I know of no way, as the law stands, by which this method of causing men to work in defective ventilation may be disposed of.

*Certification of Mine Maps.*—A question concerning the certification of mine maps has arisen during the year that suggests a small amendment to the section (8) of the law relating to that matter. The suggestion came in the form of a letter, as follows:

"HON. C. J. NORWOOD, *Chief Inspector of Mines.*

"DEAR SIR: Please let me know if a mine is misrepresented if any thing can be done with the person that misrepresents it.

Say, for instance, the course of an entry is S. 88 degrees W., and the mine foreman has it placed on the map at N. 70 degrees W., and sent to you, and all the rest of the entries accordingly, some off more than 25 degrees from what he sent you, and rooms given in at right angles that never had a compass on them, can the person that certifies to such a map be punished by law or not? I understand the mine law to say that there must be a true map of all mines."

This letter brings out a weak spot in the law that ought to be cured. It was necessary to reply to the inquiry as follows:

"It would appear that when the Legislature required that the correctness of mine maps should be certified to, it did not consider that any man trusted by a mining company to make a map would deliberately certify to a falsehood; hence it did not require that the correctness of the map should be *sworn* to (in which case there would have been the general penalty for false swearing), and it did not set a specific penalty for making a false certificate. As matters stand, therefore, a certificate to a map is simply a man's statement, and while the man may be convicted of lying if the certificate is not true, he can not be convicted of perjury, and punished therefor. But if the Inspector of Mines, from trustworthy knowledge, rejects the map even with the certificate attached, on the ground that the certificate is false and void, and the company is then fined for not furnishing the map as required, the company has recourse in law against the man who made the map and false certificate and thus caused it damage."

### III.

#### STATISTICAL INFORMATION.

In 1893, with a commercial production of 3,302,250 tons, Kentucky stood tenth among the twenty-six States and two Territories producing coal.\* What position it holds with reference to commercial coal alone can not be determined from the statistics published for other States, since the output of all mines, local as well as commercial, is included in the reports for those States. It is probable, however, that its rank would still be tenth with local coal omitted.

Accurate statistics of production of all States for 1894 have not been published. According to those published, Kentucky's rank in 1894 was still tenth, but it is not improbable that when the accurate figures are given, it will prove to be ninth.

Among the nine Southern States producing coal (omitting Maryland), Kentucky stands third, the order being as follows: W. Virginia, Alabama, Kentucky, Tennessee, Virginia, Arkansas, Georgia, Texas, North Carolina.

Kentucky shared in the general depression that marked mining operations during the past year. The commercial product amounted to 2,957,195 short tons, which was less than for either of the two immediately preceding years, and but 7,058 tons greater than for 1891.

According to grades, the output was as follows:

*Bituminous:*

Lump . . . . .	1,004,946.14 tons.
Nut . . . . .	284,788.68
Mixed lump and nut . . . . .	426,831.64
Run of mines . . . . .	564,100.55
Pea . . . . .	72,341.16
Slack . . . . .	200,441.21
Miscellaneous grades . . . . .	346,242.42
Total bituminous . . . . .	2,899,691.80
Cannel . . . . .	57,503.28
Total production . . . . .	2,957,195.08

\* In the 1893 Report the State was ranked as ninth. More trustworthy statistics for the production of the country have been published since then.

The bituminous product was disposed of as follows :

Loaded for shipment at mines . . . . .	2,677,846.93 tons.
Sold to local trade, etc. . . . .	126,734.77
Total sold . . . . .	2,804,581.70
Used for steam and heat . . . . .	47,343.94
Made into coke at originating mines* . . . . .	47,766.16
Total bituminous product . . . . .	2,899,691.80

The cannel was disposed of as follows :

Loaded at mines for shipment . . . . .	57,003.28 tons.
Sold to local trade. . . . .	500.00
Total cannel product . . . . .	57,503.28

Compared with that for 1893, the output for 1894 (2,957,195 tons) shows a net decrease of 345,055 tons. While other causes co-operated to reduce production, the decrease was principally due to the "sympathetic" strike, which stopped work in nearly every county in the Eastern Field for three months (in some of them for four), and interrupted work in most of the counties in the Western Field, the mines in Ohio and Muhlenberg counties being idle for about a month. The decrement was less than would have been the case had not the production of the Western District been increased—principally by Hopkins county mines—to meet demands for coal in Chicago and markets north of the Ohio during the long strike.

The rank of the counties producing 100,000 tons and over was as follows : Hopkins, Whitley, Ohio, Muhlenberg, Laurel, Union, and Boyd. Knox, Carter and Henderson counties, which produced over 100,000 tons each in 1893, produced less than 90,000 tons in 1894.

Marching with the reduction of the coal output, there was a decrement in the production of coke, amounting to 18,432 tons. The ovens in the Southeastern District were idle practically all the year, and the production in the Western District, which amounted to 27,715 tons, fell off 7,098 tons, although an additional plant, (at DeKoven), was put into operation.

An encouraging feature of the year was an increase in the production of cannel, the output for 1894, which amounted to

\*The total coal converted into coke amounted to 62,018 tons. See "Production of Coke."



57,503 tons, being the largest in the history of cannel mining in the State. In view of the fact that, with the change of methods in gas-making, cannel has lost much of its special market value as a gas enricher, and must now be considered chiefly with reference to its use as a domestic fuel, the increase of production seems somewhat significant. At the same time it must be admitted that some of the cannel may have gone only to fill a temporary want of bituminous coal.

The cannel fields of Morgan county, which were confidently expected to be producing in 1894, are still without railroad transportation, and in consequence no commercial product was mined there. The building of the necessary railroad, the prospects for which were so promising early in the year, failed through unexpected difficulties. There is reason to believe, however, that the construction of a road to these fields will not be delayed much longer.

#### GAINS AND LOSSES FOR 1894.

Following is a statement of the gains and losses in production for 1894, stated in short tons:

WESTERN DISTRICT.	All Mines.	Shipping Mines.
Output for 1894. . . . .	1,806,966.02	1,771,706.12
Output for 1893. . . . .	1,799,792.74	1,769,050.86
Gain for 1894. . . . .	<u>7,173</u>	<u>2,655</u>
SOUTHEASTERN DISTRICT.		
Output for 1893. . . . .	1,071,470.84	1,069,670.84
Output for 1894. . . . .	<u>798,804.04</u>	<u>798,804.04</u>
Loss for 1894. . . . .	<u>272,666</u>	<u>270,866</u>

The figures for this District show a loss in total production of 16 per cent. from the output for 1893. The loss in bituminous output alone amounted to 292,647 tons, the total loss being kept down by an increase of 19,981 tons in the production of cannel.

NORTHEASTERN DISTRICT.	All Mines.	Shipping Mines.
Output for 1893. . . . .	430,987.12	430,987.12
Output for 1894. . . . .	<u>351,425.02</u>	<u>351,425.02</u>
Loss for 1894. . . . .	<u>79,562</u>	<u>79,562</u>

The figures for the Northeastern District indicate a loss in



total production of 18 per cent. from the output for 1893. This is less than was anticipated but is accounted for by the fact that 33 per cent. of the decrease in the combined product of Boyd and Carter counties, where the greatest losses occurred, was offset by gains in Lee county.

#### PERCENTAGES OF LUMP, ETC.

Nearly 88 per cent. of the total production of bituminous coal (2,899,691 tons) was marketed in six grades, viz: lump, nut, mixed lump and nut, run of mines, pea, and slack. The percentages of the grades were as follows:

Lump . . . . .	34.65 per cent.
Nut . . . . .	9.82 per cent.
Mixed lump and nut . . . . .	14.72 per cent.
Run of mines . . . . .	19.10 per cent.
Pea. . . . .	2.49 per cent.
Slack . . . . .	6.91 per cent.
Miscellaneous . . . . .	11.94 per cent.

#### SELLING VALUE OF COAL.

Of the total amount of bituminous coal produced (2,899,691 tons), 47,344 tons were used for steam and heat at the mines and 47,766 tons were converted into coke at the originating mines; leaving 2,804,581 tons as the amount sold. The average selling value of this, per ton, at the mines was 84.08 cents. This was 3.04 cents less per ton than the average value for 1893, notwithstanding the abnormally high prices received for some of the extra tonnage sent to the Chicago market during May and June.

The average selling value per ton of cannel was \$2.572. This is a material decline from prices of former years, and is doubtless largely due to the diminished demand for cannel for gas-making.

The average selling value per ton of the total product, bituminous and cannel (2,957,195 tons), was 87.56 cents.

#### TIME WORKED, EMPLOYES AND MINES.

Notwithstanding the reduction of output, etc., there was an increase in the number of operators and in the number of mines operated, the number of operators in 1894 being 98, and of mines 138.

The average number of days worked, per separate commercial operation for the entire State, dropped from 161 in 1893 to 139 in 1894.

The maximum number of persons employed at the mines fell from 11,277 in 1893 to 11,089 in 1894, and the average number employed fell from 8,539 to 8,079.

The total number of counties producing commercial coal was 23, against 26 in 1893—the mines in Breathitt, Menefee and Magoffin counties, which put out commercial coal for at least a part of the year 1893, having been closed.

### CONSUMPTION OF POWDER.

Following is a statement of the consumption of powder, in kegs of 25 pounds, at the mines during the calendar year just closed. The statement is not presumed to be exact, since many companies keep no special powder account, and therefore report estimates. Moreover, in some instances the miners do not purchase all their powder from the company store. It is believed, however, that the amounts reported are reasonably near the actual consumption. There has been no material change in the average cost to the miner:

DISTRICT.	NUMBER OF KEGS.
Western . . . . .	31,501
Southeastern . . . . .	12,599
Northeastern . . . . .	6,960
Total . . . . .	51,060

The number of kegs is for each District the aggregate of monthly reports.

## DETAILED STATISTICS FOR 1894.

The output of the several Districts, according to disposition of product, for the calendar year 1894, was as follows:

[Amounts given in tons of 2,000 lbs.]

DISTRICT.	Mines . . . . .	Loaded for Ship- ment . . . . .	Sold to Local Trade, etc. . . . .	Used for Steam and Heat at Mines . . .	Total Product . . .
Western . . . .	57	1,624,382.33	98,663.29	36,154.24	1,806,966.02 <sup>e</sup>
Southeastern . .	56	773,067.85 <sup>a</sup>	18,542.49	7,193.70	798,804.04 <sup>a</sup>
Northeastern . .	25	337,400.02 <sup>b</sup>	10,029.00 <sup>c</sup>	3,996.00	351,425.02 <sup>d</sup>
Total . . . .	138	2,734,850.20	127,234.78	47,343.94	2,957,195.08 <sup>e</sup>

<sup>a</sup>. Includes 26,525 tons of cannel.

<sup>b</sup>. Includes 30,478.28 tons of cannel.

<sup>c</sup>. Includes 500 tons of cannel.

<sup>d</sup>. Includes 30,978.28 tons of cannel.

<sup>e</sup>. Includes 47,766.16 tons made into coke at originating mines.

The number of employes for all Districts was as follows:

	In.	Out.	Total.
Maximum . . . . .	9,235	1,854	11,089
Average . . . . .	6,821	1,258	8,079

For details relating to employes see a succeeding table.

The output by Districts according to grades was as follows :

### WESTERN DISTRICT.

The District includes all mining counties in Western Coal-field :

CALENDAR YEAR, 1894.

[IN SHORT TONS.]

GRADE.	From 57 Mines; 47 Operators.
Lump. . . . .	603,049.34
Nut. . . . .	161,197.24
Mixed Lump and Nut. . . . .	337,159.40
Run of Mines . . . . .	258,138.47
Pea . . . . .	38,285.68
Slack . . . . .	149,224 73
Miscellaneous . . . . .	259,911.16
Total . . . . .	1,806,966.02

The output of this District (all bituminous) exceeded the bituminous product for 1893 by 11,379 tons. It exceeded the combined bituminous and cannel product for 1893 by 7,173 tons. The various grades of coal placed in the "miscellaneous" class are given in detail for each mine in "Notes on the Mines."

The number of employees was as follows :

	In.	Out.	Total.
Maximum. . . . .	4,081	975	5,056
Average. . . . .	3,068	694	3,762

For details, see a succeeding table.

## SOUTHEASTERN DISTRICT.

Included in this District are the following counties in which commercial coal was mined in 1894: Bell, Knox, Laurel, Pulaski, Rockcastle and Whitley.

CALENDAR YEAR 1894.

[IN SHORT TONS.]

GRADES.	From 56 Mines; 35 Operators.
Lump . . . . .	241,758.96
Nut . . . . .	80,492.12
Mixed Lump and Nut . . . . .	89,148.24
Run of Mines . . . . .	237,559.48
Pea . . . . .	28,820.24
Slack . . . . .	25,214.76
Miscellaneous . . . . .	69,285.24
Total Bituminous. . . . .	772,279.04
Cannel . . . . .	26,525.00
Total . . . . .	798,804.04

The bituminous output of this District was less than that for 1893 by 292,647 tons. The cannel production for 1894 exceeded that for 1893 by 19,981 tons. Net decrease for 1894 272,666 tons.

The number of employes was as follows :

	In.	Out.	Total.
Maximum . . . . .	3,610	613	4,223
Average . . . . .	2,642	396	3,038

For details see a succeeding table.



## NORTHEASTERN DISTRICT.

Included in this District are the following counties in which commercial coal was mined in 1894: Boyd, Carter, Greenup, Johnson, Lawrence and Lee.

CALENDAR YEAR, 1894.

[IN SHORT TONS.]

GRADES.	From 25 Mines; 16 Operators.
Lump. . . . .	160,137.84
Nut. . . . .	43,099.32
Mixed Lump and Nut . . . . .	524.00
Run of Mines . . . . .	68,402.60
Pea . . . . .	5,235.24
Slack . . . . .	26,001.72
Miscellaneous . . . . .	17,046.02
Total Bituminous . . . . .	320,446.74
Cannel . . . . .	30,978.28
Total . . . . .	351,425.02

The bituminous output of this District was less than that for 1893 by 78,751 tons, and the production of cannel was less by 1,810 tons. Total decrease for 1894, 79,562 tons. The decrease was in small part due to the suspension of commercial mining in Breathitt, Menefee and Magoffin counties, which in 1893 produced 8,324.94 tons.

The number of employes was as follows :

Greenup Mines Omitted.	In.	Out.	Total.
Maximum . . . . .	1,544	266	1,810
Average . . . . .	1,111	168	1,279

For details, see a succeeding table.

## RAILROAD MINES.

## OUTPUT FOR CALENDAR YEAR 1894.

DISTRICT.	County.	Number of Operators.	Number of Banks.	Railroad.	Total Tons of Product.
Western	Christian	1	1	Henderson & Nashville Division of L. & N. . .	38,836.48
	Daveiss	1	1	Louisville, St. Louis & Texas . . . . .	3,641.28
	Hancock	2	2	Louisville, St. Louis & Texas . . . . .	35,570.96
	Henderson	3	3	Louisville, St. Louis & Texas . . . . .	56,570.67
	Hopkins	9	4	Chesapeake, Ohio & Southwestern . . . . .	182,651.00
	"	}	10	Henderson & Nashville Division of L. & N. . .	629,108.00
	McLean		2	Owensboro & Russellville Division of L. & N. .	15,354.28
	Muhlenberg	9	5 <sup>a</sup>	Owensboro & Russellville Division of L. & N. .	202,109.36
	"	}	3	Chesapeake, Ohio & Southwestern . . . . .	63,517.16
	Ohio		6	Chesapeake, Ohio & Southwestern . . . . .	326,168.86
	"	}	3	Owensboro & Falls of Rough . . . . .	22,768.24
	Union		7	Ohio Valley . . . . .	129,640.71
	Webster	2	2	Providence Branch of H. & N. Div. of L. & N. .	41,934.20
	Totals	40	49	<sup>a</sup> One of these also ships via C. O. & S. W. . . .	1,747,771.20
Southeastern	Bell	2	2	Cumberland Valley Branch of L. & N. . . . .	63,022.16
	Knox	1	1	Cumberland Valley Branch of L. & N. . . . .	72,857.80
	Laurel	16	21 <sup>b</sup>	Knoxville Branch of L. & N. . . . .	261,177.04
	Pulaski	6	12	Cincinnati Southern . . . . .	51,664.71
	Rockcastle	1	1	Knoxville Branch of L. & N. . . . .	800.00
	Whitley	7	16	Knoxville Branch of L. & N. . . . .	311,656.36
	"	2	3	Cincinnati Southern . . . . .	37,625.96
	Totals	35	56	<sup>b</sup> Five of these are on Altamont & Manchester E. R., feeder to Knoxville Br. . . . .	798,804.03

## RAILROAD MINES—Continued.

DISTRICT.	County.	Number of Operators.	Number of Banks.	Railroad.	Total Tons of Product.
Northeastern . . .	Boyd . . . . .	1	2	Newport News & Mississippi Valley . . . . .	111,659.34
"	Carter . . . . .	5	11	Newport News & Mississippi Valley . . . . .	77,124.20
"	"	3	3	Eastern Kentucky Railway . . . . .	8,142.08
"	Greenup . . . . .	1	1 Gr.	Eastern Kentucky Railway . . . . .	1,572.78
"	Johnson . . . . .	2	2	Ohio & Big Sandy . . . . .	16,902.35
"	Lawrence . . . . .	1	2	Ohio & Big Sandy . . . . .	86,497.00
"	Lee . . . . .	3	4	Beatlyville & Cumberland Gap . . . . .	49,527.32
	Totals . . . . .	16	25		351,425.02

DISTRICT.	Number of Operators.	Number of Banks.	Total Tons of Product.
Western . . . . .	40	49	1,747,771.20
Southeastern . . . . .	35	56	798,804.03
Northeastern . . . . .	16	25	351,425.02
Totals . . . . .	91	130	2,898,000.25

### OUTPUT BY COUNTIES.

According to production for the respective years indicated, the counties producing 100,000 tons and over have ranked as follows:

1892.	1893.	1894.
1. Hopkins.	1. Hopkins.	1. Hopkins.
2. Whitley.	2. Whitley.	2. Whitley <i>a</i>
3. Ohio.	3. Ohio.	3. Ohio <i>a</i>
4. Muhlenberg.	4. Muhlenberg.	4. Muhlenberg.
5. Laurel.	5. Laurel.	5. Laurel.
6. Boyd.	6. Knox.	6. Union.
7. Carter.	7. Boyd.	7. Boyd.
8. Henderson.	8. Carter.	
9. Knox.	9. Union.	
10. Union.	10. Henderson.	

In 1894, Knox, Carter and Henderson counties each produced less than 100,000 tons.

The following table shows the production of each county, the disposition of the product and the consumption of powder. In cases where there is only one company or firm operating in a county, two counties in the same District are considered together when stating the disposition of the product. Individual returns on that point were received in confidence, though it may readily be considered that there should be no objection to the disposition of each company's product being made public—and there doubtless is none in most cases.

It is not presumed that the figures for amount of coal used for steam and heat at the mines are more than approximately complete. At many of the mines no record is made of fuel used for the ventilating furnace. It is usually bank-slack, coal gleaned from road-ways, etc., and is not taken into consideration. In the larger number of instances, however, where no record of furnace fuel was kept, estimates as to its amount were received. It is believed that the unreported coal used as fuel for ventilating furnace and generating steam did not amount to more than 2,500 or 3,000 tons.

The table succeeding the one immediately following exhibits the gains and losses in the production of each county, compared with the output for 1893.

*a.* Whitley produced only 245 more tons than did Ohio. In the production of purely "bituminous" coal it fell below Ohio; but this was due to the long strike.

## OUTPUT BY COUNTIES AND CONSUMPTION OF POWDER.

## PRODUCT REPORTED IN TONS.

CALENDAR YEAR, 1894.

COUNTY.	Operators . . . .	Loaded for Shipment.	Sold Locally.	Used for Steam and Heat at Mines.	Made into Coke at Originating Mines.	Total Tonnage of Counties.	Kegs of Powder.
Bell . . . . .	2	61,834.47	1,100	537.70	. . . . .	63,022.17	803
Boyd . . . . .	1	<i>a</i>	<i>a</i>	<i>a</i>	. . . . .	111,659.34	2,305
Butler . . . . .	1	<i>b</i>	<i>b</i>	<i>b</i>	. . . . .	19,981.60	456
Carter . . . . .	8	77,581.28	6,705	980	. . . . .	85,266.28	1,691
Christian . . . . .	1	<i>b</i>	<i>b</i>	<i>b</i>	. . . . .	38,836.48	1,034
Daveiss . . . . .	3	3,541.28	6,807.36	4*	. . . . .	10,352.64	458
Greenup . . . . .	1	1,572.73	. . . . .	. . . . .	. . . . .	1,572.73	?
Hancock . . . . .	2	34,640.96	900	30	. . . . .	35,570.96	56
Henderson . . . . .	6	53,505.57	25,659.72	909	. . . . .	80,074.29	3,326
Hopkins . . . . .	9	725,277.84†	24,618	17,597	44,266.16	811,759.00	11,255
Johnson . . . . .	2	16,402.35	500	†	. . . . .	16,902.35	391
Knox . . . . .	1	<i>c</i>	<i>c</i>	<i>c</i>	. . . . .	72,857.80	465
Laurel . . . . .	16	249,445.72	10,357.32	1,574	. . . . .	261,177.04	4,862
Lawrence . . . . .	1	<i>a</i>	<i>a</i>	<i>a</i>	. . . . .	86,497.00	938
Lee . . . . .	3	48,367.33	460	700	. . . . .	49,527.33	1,635
McLean . . . . .	2	14,579.28	160	615	. . . . .	15,354.28	481
Muhlenberg . . . . .	9	253,861.24	7,687.60	8,031	. . . . .	269,579.84	4,721
Ohio . . . . .	7	3,9105.18	5,725.69	4,106.24	. . . . .	348,937.11	6,583
Pulaski . . . . .	6	49,420.54	747.16	1,497	. . . . .	51,664.71	3,088
Rockcastle . . . . .	1	800	. . . . .	. . . . .	. . . . .	800.00	15
Union . . . . .	5	103,072.71	24,195.92	3,817	3,500	134,585.63	2,303
Webster . . . . .	2	39,222.20	2,029	685	. . . . .	41,934.20	828



## OUTPUT BY COUNTIES AND CONSUMPTION OF POWDER—Continued.

COUNTY.	Operators . . . .	Loaded for Shipment.	Sold Locally.	Used for Steam and Heat at Mines.	Made into Coke at Originating Mines.	Total Tonnage of County.	Kegs of Powder.
Whitley . . . . .	9	<sup>c</sup>	<sup>c</sup>	<sup>c</sup>	. . . . .	349,282.32	3,366
a For Boyd and Lawrence . .	a	193,476.34	2,364	2,316	. . . . .	. . . . .	. . . . .
b For Butler and Christian . .	b	57,578.08	880	360	. . . . .	. . . . .	. . . . .
c For Knox and Whitley . .	c	412,017.12	6,338	3,785	. . . . .	. . . . .	. . . . .
Totals . . . . .	98	2,734,850.22	127,224.77	47,843.94	47,766.16½	2,957,195	51,060

\* Only this amount reported. Bank slack is used and no record kept of it. This is true of most of the coal used for ventilating furnaces at the smaller mines.

† Includes 14,251 tons sold to St. Bernard Co.'s Coke Works, and not included with coal coked at originating mines. See "Production of Coke."

‡ The output is all cannel. Coal used for furnace is bituminous got when making the "mining," and no record of it is kept.

§ The total coal coked amounted to 62,018 tons, but 14,251 tons of this were purchased for the ovens from neighboring mines, and are included in the tonnage shipped. See "Production of Coke."

**GAINS AND LOSSES BY COUNTIES—1894.**  
IN SHORT TONS.

COUNTY.	1893.		1894.		Gain for 1894.	Loss for 1894.
	Mines.	Tons.	Mines.	Tons.		
Bell . . . . .	6	67,595.84	2	63,022.17	. . . . .	4,573.67
Boyd . . . . .	2	153,313.32	2	111,659.34	. . . . .	41,653.98
Breathitt . . . . .	1	7,829.54	Suspended.	. . . . .	. . . . .	7,829.54
Butler . . . . .	1	22,465.12	1	19,981.60	. . . . .	2,483.52
Carter . . . . .	9	132,509.26	14	85,266.28	. . . . .	47,242.98
Christian . . . . .	1	35,671.40	1	38,836.48	3,165.08	. . . . .
Clay . . . . .	1	1,800.00	Omitted.	. . . . .	. . . . .	1,800.00
Crittenden . . . . .	1	160.00	No Commercial.	. . . . .	. . . . .	160.00
Daveiss . . . . .	3	15,887.32	3	10,352.64	. . . . .	5,534.68
Greenup . . . . .	1	1,385.67	1	1,572.73	187.06	. . . . .
Hancock . . . . .	4	23,104.14	2	35,570.96	12,466.82	. . . . .
Henderson . . . . .	5	110,906.60	6	80,074.29	. . . . .	30,832.31
Hopkins . . . . .	12	761,074.52	14	811,759.00	50,684.48	. . . . .
Johnson . . . . .	2	24,859.17	2	16,902.35	. . . . .	7,956.82

## GAINS AND LOSSES BY COUNTIES—1894—Continued.

COUNTY.	1893.		1894.		Gain for 1894.	Loss for 1894.
	Mines.	Tons.	Mines.	Tons.		
Knox . . . . .	1	160,285.76	1	72,857.80	. . . . .	87,427.96
Lawrence . . . . .	4	93,744.55	2	86,497.00	. . . . .	7,247.55
Laurel . . . . .	16	285,982.32	21	261,177.04	. . . . .	24,805.28
Lee . . . . .	3	16,850.22	4	49,527.33	. . . . .	. . . . .
Magoffin . . . . .	1	380.00	Idle.	. . . . .	. . . . .	380.00
McLean . . . . .	2	3,111.00	2	15,354.28	. . . . .	. . . . .
Muhlenberg . . . . .	8	315,724.16	9	269,579.84	. . . . .	46,144.32
Menefee . . . . .	1	115.40	Suspended.	. . . . .	. . . . .	115.40
Ohio . . . . .	8	354,670.28	9	348,937.11	. . . . .	5,733.17
Pulaski . . . . .	4	90,990.60	12	51,664.71	. . . . .	39,325.89
Rockcastle . . . . .	1	9,005.24	1	800	. . . . .	8,205.24
Union . . . . .	7	121,278.92	8	134,585.63	. . . . .	. . . . .
Webster . . . . .	2	35,739.28	2	41,934.20	. . . . .	. . . . .
Whitley . . . . .	14	455,811.08	19	349,282.32	. . . . .	106,528.76
Totals . . . . .	121	3,302,250	138	2,957,195	130,925.46	475,981.07

### THE CANNEL MINES.

In preceding Reports statistics of cannel production have been kept quite distinct from those relating to bituminous coal, except in summaries. It is believed that the method of presenting the two products together, followed in this Report, will prove more satisfactory. In consideration of the particular interest that is manifested in cannel just now, however, it is deemed well to present the following special table, which shows the general location of the commercial mines, and the output of the several counties.

The table does not show all the cannel that is mined and sent to market. There is no practicable way by which that may be determined. Small amounts are occasionally brought down the rivers on rafts, originating at some small bank in the mountain, and no record of the tonnage is obtainable :

#### OUTPUT OF CANNEL FOR 1894.

COUNTY.	Operators.	Tonnage.
Bell. . . . .	2	21,606 60
Carter . . . . .	2	12,503.20
Greenup . . . . .	1	1,572.73
Johnson . . . . .	2	16,902 35
Whitley ("Birdeye") . . . . .	1	4,918.40
Totals . . . . .	8	57,503.28

### SELLING VALUE OF COAL.

The following tables exhibit the selling value of the commercial coal produced in 1894, omitting the tonnage used for steam and heat at the mines, and that converted into coke at originating mines. Computations are made only for the product sold, because selling prices reported by individual operators in nearly all cases refer only to such tonnage.

It is not believed that the application of the average price received for marketed product to the total production, in order to

determine the money value of a year's output, is a correct method. No company keeping a fuel account with itself, (for coal used for steam and ventilation),—and the larger number in Kentucky probably keep no such account—will charge itself much, if any, more than cost price for such coal; and an entry in the expense account for fuel coal is as much a "selling value" as is the price received for the marketed product. To apply the average price received for marketed coal to the entire output would, therefore, prove misleading as to the total selling value of coal produced. It would be of no practical benefit. The potential value of all coal dug may be what it would bring if placed on the market, but for reasons first stated its actual value must be somewhat less.

### SELLING VALUE OF BITUMINOUS COAL.

[1894.]

DISTRICT.	Total Product.	Tonnage Sold.	Total Value of Tonnage Sold.	Average Value per Ton.
Western . . . . .	1,806,966.02	1,723,045.62*	\$1,163,723.014	\$0.7914
Southeastern . . . .	772,279.03	765,085.33	697,429.370	0.9115
Northeastern . . . .	320 446.74	316,450.74	297,028.277	0.9386
For all Districts. . .	2,899,691.79	2,804,581.69	\$2,358,180.66	\$0.8408

\* The 47,766.16 tons of coal made into coke at originating mines are not included here.

It is suspected that in one or two of the reports made to this Office as to selling value of cannel, the figures were rather high. According to returns received, the total value was \$147,920.17, which would make the average value \$2.572 per ton.

The total value of combined bituminous and cannel product sold would then be \$2,506,100.83, and the average would be 87.56 cents per ton.

### PRODUCTION OF COKE.

With the exception of a spasmodic effort made by Mr. A. G. White to start some of the ovens at the old "Cumberland Valley Colliery No. 1," (later known as "No. 1, Straight Creek Mine"), early in the spring, the Bell county ovens were idle



throughout last year. It is understood that "some little" coke was made by Mr. White—and there is excellent reason to believe that it was quite little—but whether it was marketed or left on the yard is not known. Communications addressed to Mr. White were returned "uncalled for."

In the Western District the Ohio Valley Coal and Mining Company, at DeKoven, Union county, turned out its first commercial coke from the ten ovens that had been completed in November, 1893, in May last, the first charge being made on May 1st. The coal used is slack and small pea of the "No. 9" seam. The coal is washed by the Campbell process, two Campbell percussion tables being used.\* The coal fed to the washer is smaller than pea, the pea being reduced to greater fineness by crushing. The coke made is said to be of excellent quality, when ordinarily pure water is used. Analyses of it are not at hand. Samples that have been received for display in this office have a handsome appearance. During the larger part of the coke-making period difficulty was experienced in getting sufficient water for the washer and for quenching, on account of a continued drought. In consequence of lack of supply, it was necessary to use the same water repeatedly, which, when carried beyond a certain point, doubtless gave the coke somewhat more sulphur than it would contain when using pure water. In consequence, too, the coke was water stained.

The output of the DeKoven ovens amounted to 1,707 tons. For this production 3,500 tons of coal were used. This would indicate a consumption of 2.05 tons of coal per ton of coke produced. It is probable, however, that the tonnage of coal used was a close estimate rather than an accurate record.

Practically all the coal produced in 1894 was made in the Earlington ovens of the St. Bernard Coal Co., washed No. 9 and No. 11 coals being used. The output of these ovens amounted to 26,008 tons, a decrease of 8,806 tons from the output for 1893. For this production 58,518 tons of coal were used, which indicates the consumption of 2.25 tons of coal per ton of coke produced.

First-class coke can not be produced from No. 9 or No. 11

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\* For description of process and washer see Reports of this office for 1891 and 1892.

unless the coal is washed.\* This being true, the tonnage of coal required per ton of coke produced at DeKoven and Earlington, illustrates the discount to which returns of coke indicated by analyses of the coals must be subjected. Theoretically, as indicated by contents of fixed carbon and ash, from 1.70 to 1.75 tons of No. 9 or No. 11 will make one ton of coke. But Mr. J. B. Atkinson, President St. Bernard Coal Co., finds that practically it takes two tons of clean coal of No. 9 or No. 11 to make one ton of coke. He says, referring to coke from washed coal: "It really takes 2.25 tons of No. 11 run of mine coal, unpicked and unwashed, to make one ton of coke in this field."†

The total amount of coal converted into coke was 62,018 tons. Of this, 47,767 tons, (44,787 of slack and pea and 2,980 of run of mines), were produced by mines near the ovens, operated by the companies making the coke; leaving 14,251 tons as the amount purchased from other companies, and classed by the latter, of course, as "coal loaded for shipment." The first named tonnage was not considered in computations of selling value, though it happens that had it been, the average value would not have been affected. The purchased tonnage, already being included in the tonnage loaded for shipment, is necessarily omitted from the column "made into coke at originating mines" in the table on page 24, but is accounted for in a footnote.

#### SUMMARY OF COKE MADE.

Hopkins county—by St. Bernard Coal Co. . . . .	26,008
Union county—by Ohio Valley Coal and Mining Co. . . . .	1,707
	<hr/>
Total tonnage. . . . .	27,715
	<hr/>

\* See Report of this Office, 1889: Coking Experiments at Earlington, by J. B. Atkinson.

† Letter, September 22, 1894.

## SUMMARY OF COAL PRODUCTION BY YEARS.

The following table exhibits the output of the commercial mines, bituminous and cannel, for a series of years :

FOR CALENDAR YEARS.

[IN TONS OF 2,000 POUNDS]

YEAR.	Bituminous.	Cannel.	Total Product.
1884 . . . . .	1,550,000	. . . . .	1,550,000
1885 . . . . .	1,600,000	. . . . .	1,600,000
1886 . . . . .	1,650,000	. . . . .	1,650,000
1887 . . . . .	1,933,185	. . . . .	1,933,185
1888 . . . . .	2,342,058	42,835.36	2,384,893 36
1889 . . . . .	2,205,434	40,825.42	2,246,259.42
1890 . . . . .	2,483,144	49,382.65	2,532,526.65
1891 . . . . .	2,907,096	43,040.31	2,950,136.31
1892 . . . . .	2,973,455	53,812.86	3,027,297.86
1893 . . . . .	3,258,712	43,538.70	3,302,250.70
1894 . . . . .	2,899,691.81	57,503.28	2,957,195.09

## SHIPMENTS TO LOUISVILLE.

As has been stated hitherto, it has always been difficult to obtain trustworthy statistics of the consumption of coal at Louisville. For the past two years this has been particularly the case. It is hoped, however, that hereafter such information may be obtained through the Kentucky Coal Exchange, the president of which is Mr. J. B. Atkinson, of Earlington; and that the Exchange will gather statistics not only for Louisville, but for the other principal centers of consumption in the State.

F. E. Saward, in his excellent Annual, "The Coal Trade," covering the year 1894, speaks of the shipments to Louisville as follows: "In the shipments from Pittsburgh last year (1894), it appears that there was about twenty per cent. less sent therefrom to this place. It is evident from this to even the most

casual observer that the output of Kentucky mines is holding the local markets, which is cause for congratulation."

This market is essentially a bituminous one, although the receipts of anthracite have increased to about 15,000 tons in 1893, and about the same amount in 1894.

The principal sources of bituminous receipts from points outside the State are the Pittsburgh and Kanawha regions, the product coming by river, the tonnage received by rail from outside regions being comparatively small.

The following table shows the receipts of Kentucky, Pittsburgh and Kanawha coals for a series of years, in net tons. The figures for the Kentucky product are as reported to this Office by the railroads carrying coal from Kentucky mines; those for Pittsburgh and Kanawha are estimates derived from Mr. Seward's Annual, "The Coal Trade." \*

#### COAL CONSUMED AT LOUISVILLE.

YEAR.	Kentucky.	Pittsburgh.	Kanawha.	Total.
1889 . . . . .	263,223	800,000	100,000	1,163,223
1890 . . . . .	313,863	640,000	120,000	1,073,863
1891 . . . . .	438,672	526,000	120,000	1,084,672
1892 . . . . .	421,851	500,000	125,000	1,046,851
1893 . . . . .	622,046	425,000	155,000	1,202,046
1894 . . . . .	507,124	375,000	150,000	1,032,124
	2,566,779	3,266,000	770,000	6,602,779

It will be observed that since 1892 the receipts of Kentucky coals have far exceeded those from Pittsburgh, and that, more than equalling the combined receipts of river coal from Pittsburgh and the Kanawha in 1893, they fell but a few tons short of equalling them in 1894.

The table above does not purport to show the total consumption of coal from all points in Louisville; in 1894, for example,

\* Figures given in "The Coal Trade" for Kentucky coal are lower than those reported to this Office by the railroads.



27,152 tons were received from Tennessee mines in the region of Middlesborough; but the totals given probably fall but a few thousand tons short of the actual total consumption.

The shipments from the Kentucky mines to this market during 1894, according to Districts, were as shown in the following table. For the figures I am indebted to S. R. Knott, Esq., First Vice President, Louisville and Nashville Railroad; General John Echols, General Manager, Chesapeake, Ohio and Southwestern Railroad; and G. H. Lamkin, Esq., Auditor, Louisville, St. Louis and Texas Railway. It is possible that a small tonnage was also received from the Southeastern District over the Southern Railway, but it is doubtful; no report has been received from that company.

#### KENTUCKY COAL TO LOUISVILLE—1894.

RAILROAD.	Western District.	S. E. District.	Totals.
L. & N. . . . .	204	137,521	137,725
C., O. & S. W. . . . .	335,064	. . . . .	335,064
L., St. L. & T. . . . .	34,335	. . . . .	34,335
Totals . . . . .	269,603	137,521	507,124

The shipments to this market in 1894 represent somewhat more than 17 per cent. of the total output for the year, against a fraction over 19 per cent. for 1893.

#### OUTWARD SHIPMENTS.

The total shipments of coal to other States reported to this Office for the calendar year 1894 amounted to 1,000,378 tons, as follows:

Western District, 31 companies . . . . .	696,141
Southeastern District, 24 companies . . . . .	184,557
Northeastern District, 9 companies . . . . .	119,680
Total tons . . . . .	<u>1,000,378</u>

This was an increase of about 239,368 tons over the outward



shipments in 1893. The increases for the several Districts were as follows :

Western District . . . . .	156,544
Southeastern District . . . . .	39,556
Northeastern District . . . . .	43,268
Total tons . . . . .	<u>239,368</u>

The shipments, which include both cannel and bituminous coal, were made from the following counties :

COUNTY.	TONS.
Bell . . . . .	13,640.80
Boyd . . . . .	5 943
Butler . . . . .	1,800
Carter . . . . .	14,208
Christian . . . . .	28,973
Greenup . . . . .	1,572.73
Hancock . . . . .	180
Henderson . . . . .	7,293
Hopkins . . . . .	461,735.88
Johnson . . . . .	14,109
Knox . . . . .	2,000
Laurel . . . . .	3,739.50
Lawrence . . . . .	83,797
Lee . . . . .	50
McLean . . . . .	10,127
Muhlenberg . . . . .	63,391
Ohio . . . . .	51,014
Pulaski . . . . .	544.45
Union . . . . .	40,495
Webster . . . . .	31,132
Whitley . . . . .	164,632
Total shipped out . . . . .	<u>1,000,377.36</u>

#### EMPLOYES AND TIME WORKED, BY COUNTIES.

The following table shows the number of persons employed and the total number of days worked at the mines during the year, according to counties :

EMPLOYEES AND DAYS WORKED.  
FOR ALL COMMERCIAL MINES.

CALENDAR YEAR, 1894.

COUNTY.	MAXIMUM EMPLOYEES.		AVERAGE EMPLOYEES.					TOTAL EMPLOYEES.	DAYS WORKED.					
	No. of Companies, etc. . .	No. of Banks or Mines. .	Inside.			Outside . . . . .	Diggers . .	Day Hands.	Boys . . .	Outside . . . . .	Maximum . . . . .	Average . . . . .	No. of Separate Operations . . .	Total No. of Days.
Butler . . . . .	1	1	65	12	4	15	44	9	3	8	96	64	1	195
Christian . . . . .	1	1	62	31	3	12	45	29	3	11	108	88	1	194.5
Daveiss . . . . .	3	2	28	9	2	6	18	7	2	6	45	33	3	427
Hancock. . . . .	2	2	121	12	4	10	90	10	2	9	147	111	2	258
Henderson . . . . .	6	6	202	52	14	47	136	34	10	35	315	215	6	982.8
Hopkins. . . . .	9	14	615	743 <sup>a</sup>	77	519	479	606	58	392	1,954	1,535	11	2,000.75
McLean. . . . .	2	2	40	10	3	12	32	7	3	10	65	52	2	277
Muhlenberg. . . . .	9	9	589	134	26	93	465	99	16	62	842	642	9	945.1
Ohio . . . . .	7	9	578 <sup>b</sup>	182	70	112	434	105	51	83	942	673	8	1,179.1
Union . . . . .	5	8	167 <sup>c</sup>	104	9	137	132	54	7	67	417	260	5	838
Webster. . . . .	2	2	93	14	6	12	61	13	4	11	125	89	2	196
Western District. . .	47	57	2,560	1,303	218	975	1,936	973	159	694	5,056	3,762	50	7,493.75

*a.* Includes mining machine runners.      *b.* Includes some mining machine runners.      *c.* Includes some mining machine runners.

a. Includes mining machine runners.

*b.* Includes some mining machine runners.

*c* Includes some mining machine runners.

## EMPLOYES AND DAYS WORKED—Continued.

COUNTY.	MAXIMUM EMPLOYEES.		AVERAGE EMPLOYEES.					TOTAL EMPLOYEES.		DAYS WORKED.		
	No. of Companies, etc. . .	No. of Banks or Mines. .	Inside.		Outside . . . . .	Diggers . .	Day Hands.	Boys . . .	Inside.	Outside . . . . .	No. of Separate Operations . . .	Total Number of Days . . . . .
Bell. . . . .	2	2	178	42	80	128	22	5	37	310	192	416.33
Knox . . . . .	1	1	215	60	18	181	33	14	27	333	255	112.75
Laurel. . . . .	16	21	956	157	122	696	98	51	82	1,304	927	1,724.35
Pulaski . . . . .	6	12	310	69	89	229	42	11	57	482	339	629.85
Rockcastle . . . . .	1	1	38	4	10	28	3	7	5	52	38	20
Whitley . . . . .	9	19	1,121	258	272	882	161	58	186	1,742	1,287	1,254.70
Southeastern District.	35	56	2,818	590	613	2,144	350	139	396	4,223	3,038	4,157.98
Boyd . . . . .	1	2	268	63	24	214	42	13	18	377	287	183.25
Carter . . . . .	8	14	433	44	117	336	35	17	81	627	469	966.50
Greenup . . . . .	1	1Gr.	?	?	?	?	?	?	?	?	?	?
Johnson . . . . .	2	2	100	68	38	64	14	2	2	206	98	569
Lawrence . . . . .	1	2	176	50	50	160	28	4	34	281	226	194.20
Lee . . . . .	3	4	180	42	22	121	18	3	10	249	152	738
N. E. District . .	16	25	1,157	267	251	895	137	37	163	1,740	1,232	2,650.95

## SUMMARIES OF EMPLOYES, ETC.

The following are summaries of the details given in the foregoing table :

## SUMMARY OF MAXIMUM EMPLOYES.

DISTRICT.	INSIDE.			Outside . . . .	Total . . . . .
	Diggers . .	Day Hands.	Boys . . . .		
Western . . . . .	2,560 <sup>a</sup>	1,303	218	975	5,056
Southeastern . . . . .	2,818	590	202	613	4,223
Northeastern . . . . .	1,157	267	65	251	1,740
Totals . . . . .	6,535	2,160	485	1,839	11,019

<sup>a</sup>. Some mining machine runners included. Most of them, however, are reported as day hands.

## SUMMARY OF AVERAGE EMPLOYES.

DISTRICT.	INSIDE.			Outside . . . . .	Total . . . . .
	Diggers . .	Day Hands.	Boys . . . .		
Western . . . . .	1,936	973	159	694	3,762
Southeastern . . . . .	2,144	359	139	396	3,038
Northeastern . . . . .	895	137	37	163	1,232
Totals . . . . .	4,975	1,469	335	1,253	8,032

## SUMMARY OF DAYS WORKED.

DISTRICT.	Separate Operations.	Total Days Worked.	Average Days for District.
Western . . . . .	50	7,493.75	149.8
Southeastern . . . . .	37	4,157.98	112.3
Northeastern . . . . .	18*	2,650.95	163.8
For State . . . . .	105	14,302.68	138.8

\* Days reported for only 17.

**ANIMALS EMPLOYED.**

The following statement exhibits the average number of animals employed at the mines in the various counties during the calendar year 1894:

COUNTY.	ANIMALS.		Total.
	Inside.	Outside.	
Butler . . . . .	6	2	8
Christian . . . . .	7	4	11
Daveiss . . . . .	4	4	8
Hancock . . . . .	8	7	15
Henderson . . . . .	25	3	28
Hopkins . . . . .	183	97	280
McLean . . . . .	4	3	7
Muhlenberg . . . . .	64	18	82
Ohio . . . . .	68	37	105
Union . . . . .	29	26	55
Webster . . . . .	10	4	14
For Western District . . .	408	205	613
Bell . . . . .	8	6	14
Knox . . . . .	17	4	21
Laurel . . . . .	65	25	90
Pulaski . . . . .	21	12	33
Rockcastle . . . . .	2	0	2
Whitley . . . . .	105	43	148
For Southeastern District .	218	90	308
Boyd . . . . .	40	17	57
Carter . . . . .	33	13	46
Johnson . . . . .	2	3	5
Lawrence . . . . .	20	4	24
Lee . . . . .	8	8	16
For Northeastern District .	103	45	148



## IV.

## ACCIDENTS.

During the calendar year 1894, sixty seven noteworthy accidents occurred at the mines. Sixty-four occurred underground. There were ten fatalities, either instant or directly due to injuries received in the course of mining operations, causing six widows and seventeen children.

The following table is a summary of the accidents, grouped according to causes :

TOTAL ACCIDENTS.

	FATAL.		SERIOUS.		NOT SERIOUS.		TOTALS.	
	In.	Out.	In.	Out.	In.	Out.	In.	Out.
Slate . . . . .	6	...	9	...	14	...	29	...
Coal . . . . .	...	...	2	...	4	...	6	...
Cars . . . . .	1	...	6	...	5	...	12	...
Shaft. . . . .	...	...	...	...	1	...	1	...
Missed Shot. . . . .	...	...	...	...	1	...	1	...
Blown Out Shot . . .	...	...	...	...	3	...	3	...
Powder Burn. . . . .	...	...	1	...	1	...	2	...
Powder Fumes . . . .	1	...	...	...	...	...	1	...
Blown-through Shot. .	1	...	1	...	...	...	2	...
Miscellaneous . . . .	...	...	...	...	7	2	7	2
Boiler Explosion . . .	...	1	...	...	...	...	...	1
Totals . . . . .	9	1	19	...	36	2	64	3

The fatalities occurred at the following mines :

MINE.	In.	Out.	Cause.
Stinson . . . . .	1	. . . .	Powder fumes.
Spottsville . . . . .	2	. . . .	Slate falls.
Peach Orchard . . . . .	1	. . . .	Slate fall.
Mud River . . . . .	1	. . . .	Slate fall.
Reinecke . . . . .	1	. . . .	Overturnd loaded mine car.
Cogar Creek . . . . .	1	. . . .	Slate fall.
Cumberland . . . . .	. . . .	1	Boiler explosion.
Central Jellico . . . . .	1	. . . .	Shot blew through rib.
Kensee. . . . .	1	. . . .	Slate fall.
Total . . . . .	9	1	

The inside fatalities, according to Districts, were as follows :

Western . . . . .	4
Southeastern . . . . .	3
Northeastern . . . . .	2
Total . . . . .	9

Tons of product raised per death from roof fall, all Districts. . . . .	492,865.82
Tons raised per death from roof fall in the Western District. . . . .	602,322.00
Tons raised per death from roof fall in the Southeastern District . . . .	399,402.01
Tons raised per death from roof fall in the Northeastern District . . . .	351,425.02

In the following descriptive lists, quoted remarks are statements made by the company reporting.

#### CARTER COUNTY.

*Lost Creek Mine.*—R. Hunter, a miner. Injured in shoulders by falling slate. Not serious. March 21.

2.—Albert Rigge, a driver. Slipped and fell in front of moving mine car; car ran over one of his arms and broke it. March 31.

*Stinson Cannel Mine*, of Lexington and Carter County Mining Co.—William Stevens, a miner. Found dead in his working-place in bank. Supposed to have been suffocated by powder fumes, in consequence of returning to his room too soon after

making his shot. Following is the report of details made by the General Superintendent :

“About 9 o'clock on the night of October 1, 1894, two men found the deceased, William Stevens, in his room, leaning against a post, with his right arm over his face. He was in a kneeling position. He was dead and becoming stiff. I am of the opinion that deceased, after firing his first shot, came back and lighted his second one, but the smoke overcame him, and he was unable to get out before the second shot went off, by which he was hurled away, and suffocated by the smoke made by the shot. There was a piece of cannel coal laying at his back, which would weigh about 150 pounds. There were no marks of violence on his person.

“The coroner's jury returned a verdict that the deceased came to his death by suffocation caused by the smoke from a shot. Deceased was repeatedly told not to go into his working-place, after a shot was fired, until the smoke had cleared away.’ Age 33. Left a widow and three children. October 1st.

#### HENDERSON COUNTY.

*Spottsville Mine*, operated by Green River Coal Co.—Luke Powell, a miner. Fatally injured by fall of slate. (Spine injured and kidneys crushed, and he died a few hours after being injured.) Age, 17. According to report received from Superintendent Goodall, young Powell was working a room that had fallen once up to the face. He had cut through a pillar to gather up the room again, and had fired a shot that, striking a facing in the coal, had run half way across the room and broken the slate. He then undertook to load his coal before propping the room. While doing so the slate fell on him. (It is understood that there was no coroner's inquest.) March —, 1894.

2.—Peter Massing, a miner. Killed by fall of slate. “He was working in a room where the slate had become loose for lack of propping, and on going into work on the morning of August 31st he started to timber the room. While attempting to set the first prop a piece of loose slate fell on him, breaking his neck, and otherwise injuring him so as to cause instant death.” Widow and 4 children. (It is understood that there was no coroner's inquest.) August 31st.

## HOPKINS COUNTY.

*Co-operative Mine*, of Co-operative Coal and Mining Co.—Robert G. Wilson, a car dresser; an adult. Fell off a shed while putting on roof. Painfully bruised. Lost 16 days. August 17.

(It is questionable whether the law requires a record of any outside accidents except such as are directly connected with the mining operations, but the above is nevertheless reported. Minor accidents to Joseph Cline, W. T. Green, P. D. Nolan, Henry Green and Mack Smith, that are not of sufficient importance to formally record, were reported by the Company.)

*Earlington No. 9 and 11 Mines*, of St. Bernard Coal Co.—James Bone, a driver; a white man. Leg caught between empty and loaded car; severely bruised. (Not serious.) Recovered in one month. November 7.

2.—Mat Hilton, colored, day laborer; an adult. Head bruised by fall of slate. (Not serious.) Off work about 17 days. November 16.

3.—Jacob Magenheimer, white, miner; an adult. Ankle and leg severely bruised by fall of coal while undermining a “standing shot.” (Not serious.) November 18.

4.—Robert Fegan, white; an adult. Caught between loaded trip and mules, and body bruised. (Not serious.) October —, 1894.

5.—Sam Magenheimer, white boy; engaged at loading slate. Was riding out on loaded trip, contrary to orders, and attempted to pass from rear to forward part of trip. Leg was caught between wheel and rib at a narrow place and broken. September 20.

6.—John Colbert, white, driver; an adult. Was riding on grip car of endless rope; rope came off curve rollers and struck his leg, bruising it. (Not serious.) Lost three weeks. September —, 1894.

7.—Sim Abernethy, colored, machine runner; an adult. Leg bruised by fall of small piece of slate. (Not serious.) Off work about ten days. November 23.

8.—John Griffin, engineer at coke oven. End of finger cut off while working on connecting rod of engine in machine shop. January 11.

9.—Lon Huff, white, driver; an adult. Foot caught under a derailed car and severely sprained. Off work about eleven days. January 25.

10.—John McNicholls, colored, coke drawer; an adult. Leg caught in falling front wall of coke oven and badly bruised. February 6.

11.—Fernando Nelson, white. Helping trackman. Stuck pick in ankle. Not serious. Lost one week. March 3.

12.—John Gregory, colored, driver; an adult. Mule ran off, derailed car, and Gregory was caught between car and posts. Both legs broken. March 10.

13.—Jonas Craig, colored, loader; an adult. Piece of gob fell and injured leg. Amputation necessary. May 19.

14.—Henry Harris, white, machine runner; an adult. Arm broken by fall of slate. June 11.

(Minor accidents to A. Terhune, Robert Pritchett, George Vaughn, Da: Connors, Joe Morgan, Willie Phillips, Kemp Allmon, Hardin Bone and Harry Ray were reported by the Company, the details of which need not be recorded here.)

*Diamond Mine*, of St. Bernard Coal Co.—John I. Morgan, white, miner; an adult. Was working down a standing shot. Coal fell on him. Collar bone fractured. Lost three weeks. January 3.

(Minor accidents to Wm. Patterson and Cruse Watkins, the details of which need not be recorded here, were reported by the Company.)

*St. Charles Mine*, of St. Bernard Coal Co.—Wm. Dean, colored, blacksmith. Heavy piece of iron fell on foot. Lost 33 days. April 16.

2.—John Grayette. Riding on car with bank rails; struck in stomach. Lost 6 days. April 30.

3.—Dennis Henderson, driver. Car off track. Rib broken. May 22.

4.—Wallace Cunningham, driver. Finger broken by being caught in car brake. May 14.

(Minor accidents to Wm. Pettie and Thomas Whitford were reported.)

*Hecla Mine*, of Hecla Coal Co.—Albert Kavarauah, machine runner. Arm broken by being knocked against rib of coal by return stroke of mining machine. July 16.



*Madisonville Mine*, of Monarch Coal Co.—John Chambers, colored; an adult. Struck on head and shoulder by small rock falling down shaft. Lost ten days. July 10.

*Reinecke Mine*, of Reinecke Coal Co.—Samuel Goodloe, colored, driver. Killed instantly by loaded car turning over on him. Secretary Bailey gives the following explanation of the accident: "This man was driving on the Main Entry, and was coming out with a trip of eight loaded cars. He was driving very fast, and the supposition is that when he was within 75 feet of the shaft bottom he realized he was going too fast. He then kicked the coupling by which mules were attached to trip, thus cutting them loose, and immediately put the brake on the front car with all the force he could command. The stop of the front car was very sudden, and the force of the seven cars behind caused the front car to turn over, and he was caught under the car, and his neck broken." Left a widow. (It is not known whether a coroner's inquest was held or not.) July 19.

2.—J. B. Hamley, track-layer; an adult. Back bruised by fall of slate. Laid up 19 days. Fully recovered and returned to work April 12.

(Minor accidents to Henry Blackwell and Herman Young were reported by the Company.)

#### LAUREL COUNTY.

*Union Coal Co.'s Mine*.—Robert McCann, leg and ankle injured by fall of slate. Not serious. April 2.

2.—Lee Chumley, foot mashed by fall of slate. Not serious. October 22.

*Peacock Mines*.—Man (name not given) injured by fall of slate. Character and degree of injury not stated. August —, 1894.

*Manchester Mine*.—Fred. Kritzer; ankle slightly crushed by fall of slate at face of his entry. August 25.

2 —Clint Stran (?), miner; an adult. Powder burned and struck in face by flying coal from shot in adjoining room while making a break-through. November 28.

*Buckeye Mine*.—Sam Hensley, white, a miner; an adult. Arm broken by fall of slate. (This accident is reported in October and December. Probably occurred in October)

(Minor accidents, not of sufficient moment to record here, were reported from the Lily, Laurel and Standard mines.)

## LAWRENCE COUNTY.

*Peach Orchard Coal Co.'s Mines.*—Richard Martin, miner; an adult. Finger mashed between cars. Amputation necessary. November 1.

2.—I. D. Porter, miner; an adult. Hips injured by fall of slate. Not serious. January 9.

3.—Wm. Lovens, miner; an adult. Injured by fall of coal. Not serious. May 2.

4.—John Pinson, miner; an adult. Leg broken by fall of slate. August 9.

5.—W. J. Vaughn, miner; an adult. Leg broken by fall of slate. August 31. (Man was not directly in employ of the Company at the time. Was digging his own winter supply of coal in an old mine.)

6.—Jos. Spencer, miner. Instantly killed by fall of slate. Base of skull crushed. Widow and two children. (Not known whether there was a coroner's inquest.) October 8.

7.—Alvis Blevins, miner; an adult. Internally hurt by fall of slate. Supposed not to be serious. November 14.

(Minor accidents to Rob't. Bellamy and Judge N. Green were reported.)

## LEE COUNTY.

*Avent Mine*, of Avent-Beattyville Coal Co.—Simpson Marshall, miner; a boy. Wrist injured by fall of slate. Not serious. April 3.

*Beattyville Coal Co's. Mine No. 2.*—Joseph Godfrey, Ol. Cole and George Jackson, miners. Burned by powder flame. Not serious. January 6.

Under date of January 8th General Manager Hendrie reported as follows: "The injured men, whose names are Ol. Cole, Jos. Godfrey and George Jackson, were working at the face of the Main Entry in Mine No. 2, Godfrey and Cole being engaged in driving the entry, and Jackson in turning off a room near them. All three of the men had their shots ready to fire as soon as firing time arrived. At noon the men set fire to the shots, and started down the Main Entry towards the mouth, but Cole and Godfrey, having overcharged their shot to a heavy extent, the powder blew out, and the flame overtook

the men before they had got far enough to be out of danger; the result being that the men were burned around the face and hands, Godfrey and Jackson being the worst burned of the three, Cole escaping with very little injury. Jackson and Godfrey will be all right in probably ten days' time."

It has been asserted, on the other hand, that the men were burnt by the ignition of fire-damp. The mine had been examined by the Assistant Inspector a short time previous to the accident, and he then saw nothing to indicate the presence of fire damp in the mine. It is possible that the powder flame was extended by coal dust in the atmosphere of the entry, but the probabilities are against the fire-damp theory.

#### MUHLENBERG COUNTY.

*Mud River Mine.*—C. P. Roach, a miner. Neck broken by a fall of slate. (No particulars reported.) Widow and three children. July 20.

(A minor accident to John Gillan was reported, not of sufficient moment to be recorded in detail.)

*Pierce Mine*, of Black Diamond Coal Co.—William Audens, a miner. Face severely injured by flying coal from a "missed-shot" that was set off while he was drilling a new hole near it. Not serious. December 5.

(A minor accident to E. O. Moss, at the Central Mine, was reported.)

#### OHIO COUNTY.

*McHenry Mine.*—L. F. Hudson, a miner. Powder burnt about face and hands. "Injuries light." (Particulars not given.) Off work about a month. September 7.

2.—Sam Carnihan, a miner; an adult. Hand hurt by fall of top coal. Not serious. November 12.

*Gaines' Mine.*—A miner (name not given) was injured by a fall of slate. Lost two weeks. December 18.

2.—A miner, colored, (name not given) dropped a spark into a keg of powder and was badly burned. November 10.

*Render Mine*, of Central Coal and Iron Co.—Hopkin Hopkins, road-layer; an adult. Foot injured by being jammed between cars when he was riding out. Lost eight days. October 19.

(Minor accidents to John McIntire, Samuel Jennings, Wm. Woodbern and Simon Jones were reported.)

*Taylor Mine.*—Grant Prewitt, mining machine runner; an adult. Little finger injured while loading machine on wagon. Amputation necessary. Off work one month. June 25.

*Williams Mine.*—James Wright, a miner; an adult. Injured about spine and ribs by fall of slate. "Not seriously injured." December 12.

(A minor accident to Henry Taylor was reported.)

(Several minor accidents were reported from the Echols mine, not necessary to record here.)

#### PULASKI COUNTY.

*Cogar Creek Mine.*—J. A. Scott, a miner; an adult. Killed by fall of slate. (Not known whether a coroner's inquest was held.) Said to have been caused by failure to prop. Widow and five children. February 2.

#### UNION COUNTY.

*Cumberland Mine.*—George Monroe, night fireman. Killed by boiler explosion. It is stated that he allowed the water in the boiler to get too low, and before putting on the pump replenished the fire, thus causing explosion. January 18.

2.—George Quartermouse, a miner; an adult. Foot crushed by fall of a nigger-head. Portion of toes amputated. March 27.

3.—Robert McCollum, a miner. Left hand injured by loose coal. Not serious. October 30.

#### WHITLEY COUNTY.

*Strunk's Lane Mine.*, of Pine Knot Coal Co.—Marion Strunk, a miner. Hip slightly crushed and foot broken by fall of coal. Off work from September 4 to November 22. September 4.

*Procter Mine.*—Westley Jones, a driver; a youth. Ankle joint fractured by fall of slate. October 19.

*Kensee Mine.*, of Main Jellico Mountain Coal Co.—Henry Fisher, a miner; an adult. Three toes cut off by fall of slate. April 17.



2.—Frank Dugan, a miner; an adult. Fatally injured by fall of slate at face of his room. Unmarried. August 17.

A detailed report, with diagram, of this accident was made by the Bank Committee, Superintendent and Bank Boss. Five props were standing where the fall occurred, at the following distances from the face of the coal and face of mining—the numbering beginning with the post nearest the room pillar: No. 1,  $12\frac{1}{6}$  feet from face of coal;  $13\frac{1}{4}$  feet from face of mining. No. 2,  $11\frac{3}{4}$  feet from face of coal;  $14\frac{1}{8}$  feet from face of mining. No. 3,  $7\frac{7}{12}$  feet from face of coal;  $10\frac{1}{8}$  feet from face of mining. No. 4,  $6\frac{5}{6}$  feet from face of coal;  $9\frac{2}{3}$  feet from face of mining. No. 5,  $4\frac{2}{3}$  feet from face of coal;  $7\frac{5}{6}$  feet from face of mining. The rock, ( $16\frac{3}{4}$  ft. by 6 ft. by 1 foot in its thickest part—tapering to a feather edge towards the face of the coal), fell in the space between those posts and the face of the coal. The shape of the rock conformed in a general way with the shape of the space included between the standing props and face of coal. Were it not that the finding of “seven props at face of room” is mentioned, (which may mean that they were fore-set posts which had been knocked down by the stone), it would seem clear, from the diagram and data given in the Committee’s report, that Dugan lost his life through failure to keep props set close enough to the working face.

*Jellico and Birdeye Coal Co.’s Mines.*—Ben Wright, a miner; an adult. Ribs fractured by a fall of slate. Recovered. March 15.

2.—John Ellison, laborer; an adult. Run over by a car. Lower limb lacerated and contused. Not serious. June 10.

3.—William Ford, a miner; a man. Finger broken from fall of coal. September 13.

*Central Jellico Coal Co.’s Mine.*—Lee Finger, a miner; an adult. Killed by a shot blowing through pillar from an adjoining room. Unmarried. August 4.



## V.

**STRIKES.**

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What is generally known as the "sympathetic strike," but preferably termed by the miners "the suspension," ordered by the President of the U. M. W. A., affected mining operations in fourteen of the twenty three counties in which commercial coal is produced. The counties not affected were: Christian, Daveiss, Hopkins and Webster, in the Western District; Bell and Rockcastle (in the latter the year's mining was done subsequent to the strike), in the Southeastern District; Johnson, Greenup and Lawrence, in the Northeastern District.

The operations of fifty-two out of a total of ninety-eight mining concerns were interrupted for varying lengths of time, the aggregate number of working days lost being 3,288.

The actual number of employes rendered idle was doubtless between 5,323 and 7,314—the average and maximum numbers, respectively, engaged at the mines involved during the year.

Following is a statement of the number of days lost at each mine affected by the general strike, and of the tonnage produced during the same periods in 1893:

## DAYS LOST DURING GENERAL STRIKE.

## WESTERN DISTRICT.

NAME OF MINE.	SUSPENSION.		Working Days Lost . .	Average Employees During Year . . . . .	Approximate Tonnage During Same Months, or Equivalent Portions of a Month in 1893.
	Began. . . . .	Ended. . . . .			
Aberdeen . . . . .	June 3 .	June 16 .	12	64	1,664
Falcon . . . . .	May 7 .	June 14 .	26	98	2,106
Baskett . . . . .	May . . . . .	. . . . .	10	89	2,780
Spottsville . . . . .	May . . . . .	July . . . . .	40	55	4,000
Rankin . . . . .	May . . . . .	July . . . . .	40	24	None.
Island . . . . .	May . . . . .	. . . . .	18	35	None.
Central . . . . .	May . . . . .	. . . . .	26	158	13,388
Memphis . . . . .	May . . . . .	June 20 .	36	124	7,431
Paradise . . . . .	May . . . . .	. . . . .	3	14	90
Mud River . . . . .	May 14 .	June 19 .	31	76	3,613
Pierce . . . . .	May 15 .	June 20 .	31	76	2,937
Hillside . . . . .	May 14 .	. . . . .	35	72	2,744
Powderly . . . . .	May 14 .	. . . . .	31	60	2,032
McHenry . . . . .	May 14 .	June 25 .	36	150	9,184
Echols . . . . .	May 14 .	June 25 .	36	87	5,359
Taylor . . . . .	May 15 .	June 26 .	36	144	13,119
Etna Coll'y. . . . .	June 1 .	June 21 .	18	45	None.
Render . . . . .	May 14 .	. . . . .	35	140	16,548
Williams . . . . .	May 14 .	. . . . .	35	74	4,125
DeKoven . . . . .	May 24 .	. . . . .	10	108	3,135
Cumberland . . . . .	May 20 .	. . . . .	9	92	788
For Western District. .	. . . . .	. . . . .	554	1,785	92,043

## DAYS LOST DURING GENERAL STRIKE—Continued.

## SOUTHEASTERN DISTRICT.

NAME OF MINE.	SUSPENSION.		Working Days Lost . .	Average Employes During Year. . . . .	Approximate Tonnage During Same Months, or Equivalent Portions of a Month in 1893. . .
	Began . . . . .	Ended . . . . .			
North Jellico . . . . .	April 21.	Oct. 14 .	150	255	77,876
Peacock . . . . .	May 1.	Aug. 20 .	95	81	10,678
Union. . . . .	April 21.	July 28 .	84	47	3,492
Pitman . . . . .	April 21.	Aug. 1 .	87	110	11,582
Victoria. . . . .	April 21.	July 6 .	39	73	1,056
Welsh. . . . .	April 19.	July 24 .	56	77	3,106
Laurel . . . . .	April 21.	Aug. 1 .	88	89	9,972
Star. . . . .	April 22.	July 22 .	78	32	675
Litton. . . . .	April 28.	July 30 .	54	33	2,227
Manchester . . . . .	April 20.	Aug. 1 .	89	51	147
Diamond Co.. . . . .	April 25.	July 29 .	81	154	2,862
Standard . . . . .	May 1.	Aug. 1 .	79	43	None.
Lily . . . . .	April 21.	July 31 .	87	89	798
Barren Fork . . . . .	April 21.	Aug. 1 .	88	102	9,351
Alpine . . . . .	April 22.	Aug. 15 .	99	71	11,358
Procter . . . . .	April 21.	July 21 .	78	284	20,975
Dowlais . . . . .	April 20.	July 21 .	79	179	13,838
Kensee . . . . .	April 21.	July 18 .	76	157	13,686
Central Jellico . . . . .	May 1.	July 20 .	70	117	8,136
Mountain Ash . . . . .	May .	July .	70	115	10,977
Strunk . . . . .	April 21.	Aug. 1 .	87	115	15,400
Jellico-Birdeye . . . . .	April 21.	July 17 .	75	222	None.
Bryant . . . . .	?	?	?	59	?
Kentucky Birdeye . . . .	April 21.	July 21 .	78	39	None.
Southeastern District . .			1,787	2,653	228,192

## DAYS LOST DURING GENERAL STRIKE—Continued.

## NORTHEASTERN DISTRICT.

NAME OF MINE.	SUSPENSION.		Working Days Lost . .	Average Employees During Year. . . . .	Approximate Tonnage During Same Months, or Equivalent Portions of a Month in 1893 . .
	Began. . . . .	Ended. . . . .			
Rush . . . . .	May 10 .	Aug. 27	94	287	40,440
Stinson . . . . .	Apr. 30 .	Sept. 1	106	163	10,076
Mt. Savage . . . . .	Apr. 30 .	Sept. 1	106	68	4,734
Music. . . . .	Apr. 30 .	Sept. 1	106	17	51
Lost Creek . . . . .	May 10 .	Sept. 10	106	19	3,705
Star Furnace . . . . .	May 5 .	July 9	56	47	?
Mary . . . . .	May 1 .	Oct. 15	144	50	6,910
Strait Creek . . . . .	May 1 .	Nov. 1	158	82	22,824
Beattyville . . . . .	May . .	. . . . .	12	51	None.
Crystal Creek . . . . .	May 1 .	May 21	19	33	None.
Avent . . . . .	May 1 .	June 15	40	68	None.
Northeastern District. .	. . .	. . . . .	947	885	87,740

## SUMMARY.

DISTRICT.	Working Days Lost.	Average Employees During Year. . .	Approximate Tonnage During Same Period in 1893 . .
Western . . . . .	554	1,785	92,043
Southeastern . . . . .	1,787	2,653	228,192
Northeastern . . . . .	947	885	87,740
Total . . . . .	3,288	5,323	307,975

Assuming that the product of the mines at which work was suspended would have been equal, for the same months, to that put out in 1893, the strike alone caused a decrease of 307,795 tons. The actual decrease in total production amounted to 345,055 tons.

Strikes of more than a week, due to local causes, occurred at the following mines during the year :

1. *DeKoven No. 9, Union county.*—A strike occurred October 16; ended November 3-5. Due to dissatisfaction of pick-miners with the screen. The Company, reporting, does not state how it was terminated, but the recollection of the writer is that it was in favor of the men. Working days lost, 16.

2. *Lily Mine, Laurel county.*—A strike occurred December 17; ended January 2, 1895. Caused by dissatisfaction with the screen. A new screen was put in. Working days lost in 1894, 12.

3. *Barren Fork Mine, Pulaski county.*—A strike occurred in January. Caused by a 12½ per cent. reduction in mining and labor rates. Compromised on 10 per cent. reduction. Duration of strike not reported.

4. *Alpine Mine, Pulaski county.*—A strike is thus indefinitely reported: "Reduction. Men out from January 1 to March 15. Company successful."

5. *Jellico-Birdeye Mine, Whitley county.*—A strike of 43 days, beginning March 4 and ending April 16, is thus indefinitely reported: "Trouble between union and non-union men. In favor of Company."

6. *Bryant (Tow Wad) Mine, Whitley county.*—A strike occurred on account of proposed reduction of mining rate, to correspond with cut made in price of steam coal by the C., N. O. & T. P. Railroad. Date not stated. Terminated by miners conceding the reduction March 1.

By many the "sympathetic strike" is regarded as a natural product of the demoralization of selling prices that has prevailed in the bituminous markets for the last year or so, due to overproduction and fierce competition. Whatever may have been the real cause underlying the strike, which originated in the attempted readjustment of mining scales in Pittsburgh and



Ohio districts, it certainly proved to be one of the most disastrous experiments ever undertaken by the organized mine-workers. It clearly demonstrated the unwisdom and hardship of a "sympathetic strike" in a country so great as this, and the impracticability—if not danger to the miner himself—of attempts to secure uniformity in mining scales throughout all the coal regions. That it was a severe ordeal for the life of the labor organization itself is beyond question.

The order calling them out worked a particular hardship upon the union miners in Kentucky. It not only debarred them from accepting a prosperous opportunity to recoup past losses, causing them, on the other hand, to lose many thousands of dollars in potential wages, but did as much, perhaps, to strengthen the growing tendency to reduce mining prices, and to substitute machines for men, as any one thing that has occurred in years.

What is likely to prove very harmful to the miners in the Eastern Field was the opportunity made by the strike for the extension of markets for West Virginia coal in Kentucky, and the introduction of that coal into markets that hitherto had been served largely by Kentucky mines. Already competition with West Virginia coal—which appears to be favored by the Chesapeake and Ohio Railroad in the matter of freight rates—has become a serious affair for some of our mining companies.

One of the objects of the U. M. W. A. officials appears to have been to secure a readjustment of mining scales throughout all bituminous fields, based upon a Pittsburgh-Hocking scale as the standard. Were the schedule known as the "Columbus Agreement," upon the adoption of which the strike was declared off, applied to this State, it would reduce mining rates throughout most of Kentucky.

It was also believed, in some quarters, that a general suspension would create such a demand for coal that an increase of mining rates could be secured, or at least that the scale of 1893, which was threatened by overproduction, could be retained. But the result was, in the main, profitable only to certain large producers who had quietly been stocking their surplus, to operators and employes in fields uncontrolled by the strike; and to the operators, in certain fields, when new scales were to be adopted upon the resumption of work.

In Kentucky, mining was resumed in the Western District upon the same terms as before the strike.

In the Northeastern District, where an increase of the mining rate was demanded, there was no uniform settlement. In Carter county work was resumed at each mine upon terms agreed upon for that mine, without reference to other places. In some instances in that county the miners made small gains; in others they were partially defeated. In Boyd the miners were completely defeated by the introduction of non-union men under guard. In Lee county the strike, which was of comparatively short duration, was settled by an agreement to adopt the Laurel scale when the miners and operators of that district made terms.

In the Southeastern District the new scales show material reductions from those for 1893-'4. In the Jellico region there was a reduction of about 10 per cent. In the Laurel the price for digging was cut to 70 cents per ton, a reduction of 5 cents; and for other work there was generally a reduction of  $12\frac{1}{2}$  per cent.

Following are the scales agreed upon in the Jellico and Laurel districts, the Laurel scale for 1893 being given for comparison:

#### JELICO SCALE 1894-'95.

Scale of Prices for the Jellico District, Year 1894 and 1895, Ending April 30th, 1895.—Blue Gem Coal Co., Central Jellico Coal Co., East Tennessee Coal Co., Falls Branch Jellico Coal Co., Jellico Coal Mining Co., Jellico and Birdeye Coal Co., Kentucky Birdeye Coal Co., Main Jellico Mt. Coal Co., The Procter Coal Co., Standard Coal and Coke Co., Wooldridge Jellico Coal Co.

The following scale was agreed to at a joint meeting of the operators and miners, held at Jellico on July 17th, 1894:

#### GRADES OF COAL.

There shall be three grades of coal, viz:

Low Coal—Under  $3\frac{1}{2}$  feet.

Medium Coal— $3\frac{1}{2}$  feet and under  $4\frac{1}{2}$  feet.

High Coal— $4\frac{1}{2}$  feet and over.

Blue Gem Coal— $16\frac{1}{2}$  inches to 24 inches.

Birdeye Coal.

## PRICES.

The price for Low Coal shall be 65 cents per ton.

The price for Medium Coal shall be 60 cents per ton

The price for High Coal shall be 55 cents per ton.

The price for Blue Gem Coal shall be 75 cents per ton.

Ton of 2,000 pounds in weigh box. The High Coal price shall only be paid when such high coal screens 75 per cent of lump coal in the weigh box.

The price for Birdeye Coal shall be 70 cents per ton of 2,000 pounds, run of mines coal.

## SCREENS.

Screens shall not exceed 72 superficial feet in area with 14 inches space between bars.

## MEASUREMENTS.

It is understood that only coal shall be measured and not impurities. The mining seam and sand band shall not be considered impurities if measured.

## TRACKS.

The company shall lay all tracks.

## CARS.

The company shall handle all cars in rooms. Except in robbing back entries the miner shall deliver at a safe place on entries all coal mined in entry stumps and such coal that be left in pillars for support of entry and airway adjacent to stumps, as directed by mine boss.

## YARDAGE.

The standard price for slate entries shall be \$2.15 per yard; but when both top and bottom are blasted the price shall be \$2.65 per yard. Rock or sandstone entries, \$3.05 per yard. The company may blast any or all narrow work if price is not satisfactory. Entries, airways and all narrow work in coal when used for entries or airways shall be 87½ cents per yard; but whenever the slate parting occurs in the coal and no top or bottom is blasted, the price shall be \$1.30 in entries and airways when the slate is loaded out and exceeds 9 inches; over 9 inches and up to 18 inches in entries and rooms, 5 cents per ton extra on the coal shall be paid.

## ROOM TURNING.

Turning rooms shall be \$2 in High Coal.

\$2.25 in Medium Coal.

\$2.50 in Low Coal.

\$3.75 for double rooms in all coal when ordered.

## TIMBER.

All timber shall be placed convenient to the mouth of the mine, but miners must select their timbers and place convenient to the track, and number them; then the driver shall bring them at his earliest convenience after being notified; but it must be distinctly understood that a miner must not, under any consideration, continue to work if a delay of delivery endangers his safety.

## LABOR.

Ten hours shall constitute a day's work, and all day labor shall be paid for by the hour on the following scale:

Drum man.....	15 $\frac{1}{4}$ cents per hour.
Knucklemen .....	13
Chute .....	13
Head trackman.....	19 $\frac{1}{4}$
Assistant trackman.....	15 $\frac{1}{4}$
Drivers, men.....	15 $\frac{1}{4}$
Drivers, boys.....	10 $\frac{1}{4}$
Spike team drivers.....	17 $\frac{1}{2}$
Trappers .....	4 $\frac{1}{2}$ to 6 $\frac{1}{2}$
Oiler .....	4 $\frac{1}{4}$ to 6 $\frac{1}{4}$
Couplers.....	11
Furnacemen .....	13
Pushers, men .....	15
Pushers, boys.....	10

And any labor not herein mentioned shall be reduced 12 $\frac{1}{2}$  per cent. from last year's scale.

## RENTS.

All rents shall be reduced ten per cent. from last year.

## HOUSE FUEL.

Lump coal to be \$1.50 per two-horse wagon load.

Nut coal \$1 per two-horse wagon load.

When an employe does not buy coal, he shall pay 50 cents per month in the spring and summer and \$1 in the fall and winter.

Where coal is thrown off from railroad cars, the price shall be \$2 per month in winter and \$1 in spring and fall and 50 cents for summer.

#### ARBITRATION.

There shall be a board of arbitration and conciliation to adjust all disputes arising under this agreement composed of three on each side, with power to select an umpire, and their decision shall be final and binding on all parties to this agreement. This board shall consist of the following: J. C. Brooks, P. Francis, John Phillips, on part of operators; and on part of miners, John W. Cox, President District 19; J. S. Bell, T. J. Bruce. Under no consideration shall work cease until the arbitration board decides on the question at issue.

#### DEATHS.

In case of death in the family of any employe, or upon the death of an employe, the following rule shall prevail:

Death by accident in or around any mine, such mine will lay idle until after the funeral. Death of a grown person from natural causes, the mine will lay idle on the afternoon of the funeral. On the death of a child or minor, the work will not lay idle, but those wishing to attend the funeral may lay off to do so.

#### PICK SHARPENING.

Forty cents per month; but if mine does not run over  $\frac{1}{4}$  month, ten cents;  $\frac{1}{2}$  month, twenty cents;  $\frac{3}{4}$  month, thirty cents.

#### EMPLOYEES.

All men in the employ of the company at the time of suspension to be re-employed without prejudice or partiality.

#### PAY-DAY.

Pay-day shall be on the first Saturday after the tenth of each month for all work done in the preceding month, less charges; but on presentation of five days' notice by any employe he shall be entitled to full settlement at expiration of such notice.



## WEIGHMASTER.

The weighman and check-weighman shall check off for dues from all who authorize them in writing to do so, not to exceed 75 cents per month from each man in excess of check-weighman's salary after medical and rents for current month are charged.

## BLACK-LISTING.

No man to be black-listed who does not agree to have dues collected.

## TIME OF CONTRACT.

This contract expires by limitation on the 30th of April, 1895.

E. T. HALSEY, *Chairman*.

ARTHUR O'NEIL, *Secretary*.

Submitted to and endorsed by mass meeting of miners.

W. C. WEBB, *Chairman*.

T. J. BRUCE, *Secretary*.

## LAUREL SCALE, 1893-'94.

Scale of Prices for Laurel District, Adopted at Pittsburg, Ky., April 28, 1893, for the Ensuing Year, Ending April 30, 1894.

*For Mining*.—The price shall be 75 cents per ton of 2,000 pounds over the present screens of one and one-fourth inch spaces.

*For Run of Mines Coal*.—55 cents per ton of 2,000 pounds from the pick.

*Room Turning*.—\$2.50 as heretofore; same to be paid for when turned or widened. No pay for rooms where there is no narrow work.

*Airways*.—50 cents per yard for 50 yards; over that distance 75 cents per yard.

*Break-throughs*.—Over 4 feet, 50 cents per yard for entire distance; 4 feet and under, no pay.

*Entry Work*.—\$2 per yard as heretofore.

## DAY LABOR.

Inside driver (one mule), \$1.75 per day.

Spike team drivers, outside and inside, \$2 per day.

Outside drivers, one mule, \$1.50 per day.

Boss track-layer, \$2.20 per day.

Assistant track layer, \$1.75 per day.

In case boss track-layer is off temporary, assistant gets only \$1.75 as before.

Tipplers and trimmers, \$1.50 per day.

Trappers, 60 to 75 cents per day.

All outside work in proportion.

For taking bottom, \$1 per foot in thickness for three feet long.

Entries shall be driven 8 feet wide by 6 feet high.

When company gets coal, \$4 per yard, same size entry.

All differences as to price between miners and bank boss shall be settled by bank-boss and bank committee—such as water-bailing, moving fallen slate, dead work, etc.

Work shall begin at 6 o'clock, A. M., and stop at 5 o'clock, P. M., allowing one hour for dinner.

Any employe of the company wishing to quit work shall turn over all property belonging to the company and receive a due bill for amount due him, payable at regular pay-day.

House rent to be charged on first of the month, doctor and sharpening on last of the month.

A representative of the miners shall be permitted, if they desire, to be present at the offices of the various companies on pay-days, so as to have the opportunity of collecting from such men as desire to pay it to them, any dues claimed by the bank committee.

Pay-day shall be on first and fifteenth of each month.

Should the first or fifteenth come on Sunday, pay-day shall be the Saturday previous.

It is agreed that no discrimination be made between employes as regards work.

Signed,

W. A. PUGH, *Chairman,*

J. W. BASTIN, *Secretary,*

J. N. HUTCHISON, *Secretary,*

JOHN PATTERSON, }  
JOHN KANE, } *Committee.*  
S. P. HERRON. }

## LAUREL SCALE, 1894-'95.

Scale of Prices Agreed upon July 27, 1894, for the Following Companies, viz: Pitman Coal Co., Laurel Coal Co., Peacock Coal Co., Victoria Coal Co., Union Coal Co., and Diamond Coal Co., and any Company not Mentioned Above who may Hereafter Sign the Following Conditions and Prices, Except Companies who Have Already Made Contracts. This Contract Expires by Limitation April 30, 1895.

*For Mining*.—70 cents per ton under former conditions.

*Entry Work*.—\$1.90 per yard.

*Airways and Break-throughs*.—50 cents per yard as heretofore.

*Room Turning*.—Single room, \$2.20; double room, \$3.10.

*Taking Bottom*.—1 foot thick, 3 feet long, 87½ cents.

## DAY LABOR.

*Drivers*.—Single mule, \$1 55; spike team, 2 or 3 mules, \$1.75; outside, single mule, \$1.30. Any driver burning black oil shall be charged 10 cents per day.

*Track Layers*.—\$1.75 per day.

*Tippers and Trimmers*.—\$1 50 per day.

*Trappers*.—50 cents to 60 cents per day.

*Oilers*.—50 cents to 60 cents per day.

*Couplers*.—\$1.10 per day.

*Furnaceman*.—\$1.25 per day.

*Furnaceman Boy*.—65 cents per day.

Other day labor not mentioned, 12½ per cent. reduction from last year's scale.

Ten hours shall constitute a day's work.

*Pick Sharpening*.—40 cents per month. If mine works only ¼ of a month, 10 cents; ½ month, 20 cents; ¾ month, 30 cents; over ¾ month, full pay.

*Auger Bits*.—7½ cents each.

*Collection of Dues*.—The weighman or check-weighman shall check off dues from all who authorize them in writing to do so, not to exceed thirty cents per month from each man in excess of check-weighman's salary, after medical and rents for current

month are charged. No man to be black-listed who does not agree to have dues collected.

There shall be no discrimination between union and non-union men in hiring men to work in and about mine. No man to be discharged who fails to trade in Company's store. House rent 10 per cent. reduction. Pay-day, until December 1st, once per month, which shall be on the first Saturday after the 10th of the succeeding month. After December 1st twice per month as heretofore. Any man giving 10 days' notice shall have a full settlement. All questions of difference shall be settled by arbitration. No cessation of work during arbitration. Arbitration committee shall consist of three operators and three miners. Operators' committee, S. V. Rowland, C. D. Anderson and W. A. Pugh. Miners' committee, J. W. Cox, J. R. Mullins and J. N. Hutchison.

*Deaths.*—In case of death in the family of any employe, the following rule shall prevail: Death by accident in or around any mine, such mine shall be idle until after the funeral. Death of a grown person from natural causes, the mine shall be idle on the afternoon of the funeral. Death of a child or minor, the work will not lie idle, but those wishing to attend the funeral may lay off to do so.

All differences as to price between miners and bank boss shall be settled by bank boss and bank committee, such as water-bailing, moving fallen slate, dead work, etc.

W. A. PUGH,	}	Operators.
GEO. F. ANDERSON,		
S. V. ROWLAND,		
J. W. BASTIN, <i>Sec'y</i>		
J. W. COX, <i>Pres. Dis. 19.</i>	}	Miners.
J. N. HUTCHISON,		
J. R. MULLINS, <i>Sec'y</i>		

## VI.

COMMERCIAL MINES.

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Following is a list of operators putting out commercial coal. Companies or firms that were idle throughout the year, and have given no evidence of a purpose to resume operations in 1895, are omitted. Some of the mines enumerated were operated for only a short time in 1894; some others are new, and will be operated for the first time in 1895; a few are mentioned that have been idle, but are expected to be again in operation during the coming year; and others are included that, hitherto worked in a small way for local trade only, are expected to enter the commercial markets. There were a few short-lived companies that operated a short time during the year which are not included, since they no longer exist. They are accounted for elsewhere.



## WESTERN DISTRICT.

NAME OF OPERATOR.	Post-office.	County.	Number of Banks.	Character.
Aberdeen Coal and Mining Company . . . . .	Morgantown . . . . .	Butler . . . . .	1	Drift.
J. F. Phillips . . . . .	Morgantown . . . . .	" . . . . .	1	"
Empire Coal and Mining Company . . . . .	Empire . . . . .	Christian . . . . .	1	Shaft.
C. L. Nall . . . . .	Owensboro . . . . .	Daveiss . . . . .	1	"
New Holland Coal Company . . . . .	" . . . . .	" . . . . .	1	Drift.
A. R. Brucks ("Deane's mine") . . . . .	" . . . . .	" . . . . .	1	Shaft.
Best & Son . . . . .	Petri . . . . .	Hancock . . . . .	1	Drift.
Hawesville Coal Co. (Falcon) . . . . .	Hawesville . . . . .	" . . . . .	1	"
Wm. Shiver & Co. . . . .	Curdsville . . . . .	" . . . . .	1	Shaft.
Green River Coal and Mining Company (Rankin) . . . . .	Spottsville . . . . .	Henderson . . . . .	1	"
Henderson Mining and Manufacturing Company . . . . .	Henderson . . . . .	" . . . . .	1	"
The Jorris-Bartley Mining Company . . . . .	" . . . . .	" . . . . .	1	"
Corydon Coal Company . . . . .	Corydon . . . . .	" . . . . .	1	"
Baskett Coal Company . . . . .	Baskett . . . . .	" . . . . .	1	"
Green River Coal Company ("Spottsville") . . . . .	Spottsville . . . . .	" . . . . .	1	"
Carbondale Coal and Coke Company . . . . .	Hamby's Station . . . . .	Hopkins . . . . .	1	Drift.
Hecla Coal and Mining Company . . . . .	Earlington . . . . .	" . . . . .	2	Shaft and Slope.
St. Bernard Coal Company . . . . .	" . . . . .	" . . . . .	2	Drift and Slope.
" . . . . .	Morton's Gap . . . . .	" . . . . .	2	Drifts.
" . . . . .	St. Charles . . . . .	" . . . . .	2	Drifts.
J. L. M. Robertson & Son . . . . .	Earlington . . . . .	" . . . . .	1	"
Woodstock Coal Company . . . . .	Nortonville . . . . .	" . . . . .	1	"
Monarch Coal Company . . . . .	Madisonville . . . . .	" . . . . .	1	"
Reinecke Coal Company . . . . .	" . . . . .	" . . . . .	2	Shaft.
Co-operative Mining and Manufacturing Company . . . . .	Barnsley . . . . .	" . . . . .	1	"
Crabtree Coal Mining Company . . . . .	Isley . . . . .	" . . . . .	1	Drift.
Island Coal Company . . . . .	Island . . . . .	McLean . . . . .	1	"
Alva Karnes . . . . .	" . . . . .	" . . . . .	1	Shaft.
W. E. Batsell (near Island) . . . . .	Livermore . . . . .	" . . . . .	1	Slope.
B. V. McKenney . . . . .	Island . . . . .	" . . . . .	1	Drift.
Central Coal and Iron Company . . . . .	Central City . . . . .	" . . . . .	1	"
W. H. Dovey, Dovey's Kentucky Mines . . . . .	Mercer Station . . . . .	Muhlenberg . . . . .	3	Shafts and Slope.
		" . . . . .	(2 Idle)	Shaft.



## SOUTHEASTERN DISTRICT.

NAME OF OPERATOR.	Post-office.	County.	Number of Banks.	Character.
Coyne & Todd . . . . .	Middlesboro . . . . .	Bell . . . . .	1	Drift.
Breckenridge and Pineville Syndicate . . . . .	Pineville . . . . .	" . . . . .	3	Drifts.
Log Mt. Coal, Coke and Timber Company . . . . .	" . . . . .	" . . . . .	1	Drift.
North Jellico Coal Company . . . . .	Grays. . . . .	Knox . . . . .	1	"
B. F. Gray . . . . .	" . . . . .	" . . . . .	1	"
East Jellico Coal Company . . . . .	Artemus . . . . .	" . . . . .	2	"
East Altamont Coal Company . . . . .	Altamont . . . . .	Laurel . . . . .	1	"
Buckeye Coal Company . . . . .	" . . . . .	" . . . . .	1	"
George Bailey . . . . .	East Bernstaft. . . . .	" . . . . .	1	"
Peacock Coal Company . . . . .	" . . . . .	" . . . . .	2	"
Union Coal Company . . . . .	" . . . . .	" . . . . .	2	"
Pitman Coal Company . . . . .	" . . . . .	" . . . . .	2	"
Victoria Coal Company . . . . .	" . . . . .	" . . . . .	1	"
Pittsburgh Coal Company . . . . .	" . . . . .	" . . . . .	1	"
Laurel Coal Company . . . . .	" . . . . .	" . . . . .	1	"
Star Coal Company . . . . .	" . . . . .	" . . . . .	1	"
Litton Coal Company . . . . .	" . . . . .	" . . . . .	1	"
Pearl, Thompson & Co. (Standard Coal Company) . . . . .	Altamont . . . . .	" . . . . .	2	"
Manchester Coal Company . . . . .	" . . . . .	" . . . . .	1	"
Diamond Coal Company . . . . .	" . . . . .	" . . . . .	2	"
Lily Coal Company . . . . .	Lily . . . . .	" . . . . .	2	"
Bowman Ridge Coal Company . . . . .	Greenwood . . . . .	Pulaski. . . . .	(1 Idle)	"
Enterprise Coal Company . . . . .	" . . . . .	" . . . . .	1	"
Paris Coal Company . . . . .	Parker's Lake . . . . .	" . . . . .	1	"
Indian Creek Coal Company . . . . .	" . . . . .	" . . . . .	1	"
Cogar Creek Mining and Coal Company . . . . .	Flat Rock . . . . .	" . . . . .	1	"
Richmond Coal Company . . . . .	Alpine . . . . .	" . . . . .	1	"
Barren Fork Mining and Coal Company . . . . .	Flat Rock . . . . .	" . . . . .	4	"
W. M. Gay, Lessee Pine Hill Coal and Iron Company . . . . .	Pine Hill . . . . .	Rockcastle. . . . .	1	"
Bryant Brothers . . . . .	Pine Knot. . . . .	Whitley. . . . .	1	"
Jellico and Birdeye Coal Company . . . . .	Halsey . . . . .	" . . . . .	5	"
Procter Coal Company . . . . .	Red Ash . . . . .	" . . . . .	3	"



## VII.

### NEW AND OTHER MINES.

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It is worthy of note that while 1894 was not a satisfactory year for the coal-mining industry from any point of view, new companies continue to enter the field, older companies continue to open new mines, and there is renewed interest in developing new fields.

Twenty-eight new mines, representing nineteen new operators, were opened ; three mines were reopened, and four that formerly were entirely local entered the commercial class. Operations were suspended at eleven mines that were productive in 1893.

The new commercial mines are distributed among the Inspection Districts as follows : Western District, 9 new mines, 7 new operators ; Southeastern District, 15 new mines, 9 new operators ; Northeastern District, 4 new mines, 2 new operators.

In addition to those above enumerated, two or three new mines were opened by short-lived companies or firms.

Following are

#### THE NEW MINES.

1. *The Thompson Coal Co.* has opened a slope mine at Deane-field, Ohio county, in the Deane-field Coal. P. O., Ætnaville. Considerable capital has been invested in the plant, and early in the autumn it was expected that the mine would be putting out coal by November. When visited toward the close of the latter month, however, it was evident that shipment could not be expected before the close of the year. Underground only the slope entry was being driven ; there were no rooms, and the condition of the coal bed did not favor the opening of rooms, even if desired, at any point on the length that had been driven. The coal was split into two widely separated benches by the



thickening of the parting that usually marks the Deane field seam, and tests showed that the solid coal was still considerably ahead of the face of the slope. M. S. Thompson is President; Geo. C. Roberts, Superintendent and General Manager.

2. *Messrs. Best & Son* opened a mine near Petri, Hancock county, early in the year. On June 12th there were about 15 persons employed, but the number was decreased later on. See "Notes on the Mines."

3. *B. V. McKenney* commenced opening a new mine near Island, McLean county, in the same coal as that formerly worked at Robinson No. 2, and in the same ridge as that in which the latter mine was worked, but nearer the railroad. No shipments were made, and work was suspended, but whether definitely or not is not known.

4. *The Silver Creek Coal Co.* opened a new mine about 1 mile south of Central City, Muhlenberg county, and began shipping in November. See "Notes on the Mines."

5. *The Karnes mine*, efforts to open which, near Island, McLean county, have been noted in a preceding Report, was finally opened in 1894, and connection made with the Owensboro & Russellville Railroad. See "Notes on the Mines."

6. *The Hecla Coal Co.* opened a slope mine in No. 9 coal, near its shaft mine, near Earlington.

7. *The St. Bernard Coal Co.* opened a new drift mine in No. 9 coal, nearly opposite its Diamond mine, expecting to leave the latter in the coming spring (1895)

8. *Wm. Shiver and John Lynch* opened a shaft mine near Curdsville, on Green river, about six miles above Spottsville, Henderson county. The shaft is about 27 feet deep. On November 6 there was no machinery at the mine, but it was expected to ship coal by river. The coal wrought is about 4 feet thick. Coal has been sold to Green river boats and to local trade.

9. *W. E. Batsel* opened a new mine about 500 yards below the old Robinson No. 1, in McLean county. P. O., Island. On December, 1st, there were but two persons employed, driving entry, which was then in about 35 feet. A tram road, laid with iron, was being built to Green river, distant about 400 yards. Mr. Batsel stated that he expected to employ 20 to 25

persons, and that shipments would be made both up and down the river.

10. *The Union Coal Co* opened an additional mine, near its No. 1, near Pittsburgh, Laurel county. See "Notes on the Mines."

11. *The Paris Coal Co.* opened a new mine near Parker's Lake, Pulaski county. See "Notes on the Mines."

12. *The Bowman Ridge Coal Co.*, W. W. Reese, Superintendent, opened a new mine at Beaver Creek, Pulaski county. P. O., Greenwood. It was expected that shipments would begin in January, 1895.

13. *The Enterprise Coal Co.*, J. H. Chew, Superintendent, opened a new mine, the Enterprise, near Greenwood, Pulaski county. It was expected that shipments would be made in January, 1895.

14. *The East Altamont Coal Co.*, W. S. Green, Secretary, opened a new mine near Altamont. Shipments were expected to begin in January, 1895.

15. *B. F. Gray* opened a new mine, in the North Jellico seam, near Grays, in Knox county. When visited on December 15th, the entry had been driven about 100 feet. The coal is high in the hill and is brought to the tippie by an incline. The tippie is connected with the Cumberland Valley Branch R. R. by a spur about one eighth of a mile long. The spur was graded and ready for the rails, trestles for the tippie were up, and the incline was partly graded at the time of the visit. It was expected to be ready for business by February, 1895.

16. *The East Tennessee Coal Co.* opened an additional mine near Dowlais, Whitley county. See "Notes on the Mines."

17. *The Procter Coal Co.* opened an additional mine, the Grinstead, near Red Ash, Whitley county. See "Notes on the Mines."

18. *The Hywel Davies Coal Co.*, (Lessee of Main Jellico Mtn. Coal Co.), opened an additional mine near Kensee, Whitley county. See "Notes on the Mines."

19. *The Daisy Coal Co.*, G. W. Shields, Secretary, opened a mine near Pittsburgh, Laurel county. This company, a co-operative association of miners, was short-lived, and the mine passed into the hands of the Pittsburgh Coal Co. See "Notes on the Mines."

20. *The Kentucky Birdseye Coal Co.* opened a mine near Halsey, in Whitley county. See "Notes on the Mines."

21. *The Standard Coal Co.* (Pearl, Thompson & Co.), opened an additional mine, Standard No. 2, on the Altamont and Manchester Railroad, near East Bernstadt, Laurel county. See "Notes on the Mines."

22. *Geo. Bailey* opened a new mine near East Bernstadt. It is known as the Whistle Hill Mine. See "Notes on the Mines."

23. *The Star Furnace Coal Co.*, (Dr. J. M. Logan & Son), opened a mine near Kilgore, Carter county, on the Star Furnace property of the Norton Iron Works Co. See "Notes on the Mines."

24. *John R. Collins* opened a mine near Kilgore, Carter county, and mined 1,400 tons of coal. The operations of Mr. Collins were temporary. He soon passed his lease to another person, and subsequent mining amounted to little.

25. *The Avent Beattyville Coal Co.* opened an additional mine, Avent No. 2, near Beattyville, Lee county. See "Notes on the Mines."

26. *The Lexington and Carter County Mining Co.* opened an additional mine near Mt. Savage, Carter county. See "Notes on the Mines."

27. *The East Jellico Coal Co.* has been busily preparing to mine on Brush creek, in Knox county,  $2\frac{1}{2}$  miles southwardly from Artemus. The tipple will be reached by a spur from the Cumberland Valley Branch of the L. & N. Railroad. Mr. D. P. Whitsett, President, in a letter of recent date, states: "We have purchased and have under contract about 2,000 acres of land. \* \* \* We have three-fourths of a mile of railroad track laid, and iron bridge, 206 feet span, across the Cumberland river completed. The bridge is sufficiently heavy to carry any locomotive followed by a heavily loaded coal train. We have another mile of track graded, ready for the steel, and will complete grade in about two weeks when the weather gets favorable. As to the number of coal seams and altitude of each in this neighborhood (south side of Cumberland river, on Brush creek and tributaries), the attached diagram will show. Taking the Cumberland river as the base, the Jellico vein is one hundred and twenty feet above; 360 feet higher is

the Vanderpool; 80 feet above that is the Dean; and 40 feet higher is the 'Whitsett.' In the absence of any other name, I have given the top vein my own name.\* The Whitsett vein is a semi-cannel, pure, hard, and an excellent domestic and fuel coal, with no parting or slate." [In the diagram a thickness of 63 inches is shown for the Whitsett seam.] "The Dean vein has proven up far beyond our expectations, being in all 10 feet 4 inches thick, with two partings, one 4 inches and the other 12 inches. The 4-inch parting is a hard fire-clay, lying in oblong squares, 4 inches wide by 6 to 8 inches long; the coal on both sides leaves it freely. The 12-inch parting is a soft fire-clay, with thin slate on either side. This coal is also hard, pure, and of excellent quality—a splendid coal for shipping and stocking—mining in large blocks." [The benches of this coal measure as follows: 1. Top bench, 30 inches, separated from the middle bench by 12 inches of soft clay; 2. Middle bench, 42 inches, separated from lower bench by 4 inches of peculiarly indurated clay; 3. Bottom bench, 36 inches.] "The Vanderpool and Jellico we have not sufficiently developed yet to make a report. We are working at them now. The Vanderpool, we think, will, from present appearances, develop into a  $4\frac{1}{2}$  or 5 feet vein, and the Jellico from 4 to  $4\frac{1}{2}$  feet."

### REOPENED MINES.

1. *Pine Hill Mine.* The Pine Hill Coal and Iron Co.'s mine, near Pine Hill, Rockcastle, which was suspended in 1893, has been leased by Mr. W. M. Gay. Mr. Gay commenced operations in December, and reports 800 tons as his output.

2. *Buckeye Mine,* near East Bernstadt, Laurel county. This mine, which had been idle a long time, was reopened by a new company bearing the name Buckeye Coal Co. See "Notes on the Mines."

3. *Little Fork Mine,* near Anglin, Carter county. This mine, which was closed the latter part of 1892, was leased by Mr. E. G. Rice, (P. O. Mt. Savage), August 1st, the lease to run six or seven months. The mine was operated a short time and then

\* Possibly it is the McGuire cannel of Bell county, which is from 75 to 80 feet above the Dean in the Pineville region.—C. J. N.



closed down again ; for how long is not known. A difficulty in the way of successfully operating this mine is lack of track connection with the railroad. Shipments can only be made by hauling the coal to the Eastern Kentucky railroad in wagons.

#### ENTERED THE COMMERCIAL CLASS.

1. *The Finley Mine*, near Williamsburg, Whitley county, operated by W. H. Ross. This mine was not known until in November. See "Notes on the Mines."

2. *Andrew Coyne and W. M. Todd* have a mine near Middlesborough, Bell county, from which it is expected shipments will be made in the spring of 1895. The mine has been run for local purposes only. When visited in December only four miners were employed.

3. *Cann's Mine*, near Sturgis, Union county, is now operated by Messrs. Cross & Veazy, a new firm. Track connection with the Ohio Valley Railroad has been made, and the mine has entered the shipping list. See "Notes on the Mines."

4. *Wanless Mine*, at Providence, Webster county. This mine, formerly known as the Taylor, has been leased by Robert Wanless, and has entered the shipping list, though the larger part of the trade is doubtless still local.

#### SUSPENDED MINES.

1. *The Hinkel Mine*, near Petri, Hancock county. Suspended the latter part of 1893.

2. *Providence No. 2 Mine*, of the Providence Coal Co., at Providence, Webster county, was idle all the year.

3. *Breckenridge Mines*, of the Breckenridge Co., Limited, in Hancock county. Were idle all the year. Contrary to a former understanding, it is said that there is still considerable cannell in these mines that may be worked when better prices prevail.

4. *Robinson No. 2 Mine*, near Island, McLean county, formerly worked by McKenney & Stanley. Idle all the year.

5. *Robinson No. 1 Mine*, near Island, formerly worked by McKenney & Stanley. After being operated for a short time by Mr. W. E. Batsell, Lessee, the mine was permanently abandoned.



6. *The St. Vincent Coal and Coke Co.'s Mines*, near Pineville, Bell county, did not advance beyond the preliminary work mentioned in the Report of this Office for 1893.

7 and 8. *The Torchlight Mines*, at Torchlight Station, Lawrence county, operated for a time in 1893 by Col. Jay H. Northup, were idle throughout 1894.

9. *The Colvin Mine*, of the Colvin Cannel Coal Co., in Magoffin county, was idle all the year.

10. *The Elkatawa Mine*, formerly worked by the Kentucky Union Land Co., at Elkatawa, Breathitt county, was idle all the year. It is understood that it has been permanently abandoned.

11. *The Kentucky Boghead Mine*, of the Kentucky Cannel Co., in Carter county, was shut down in April. During the time it was in operation a production of 1,093 tons of cannell and 359 tons of bituminous coal was reported.

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## VIII.

### NOTES ON THE MINES.

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For the sake of condensation, no distinction is made in the following notes between the work of the Assistant Inspector and that of the Chief, save when there seems to be a particular reason for so doing. It was at first intended to include the Assistant's monthly reports in this Report, but after due consideration it is believed that to do so would only lead to confusion. In succeeding annual reports of the Office an individual report from the Assistant, covering his work for the year, may be given. By reference to the chapter on General condition of the Mines the number of inspections made by each official, in 1894, may be ascertained.

*NORTHEASTERN DISTRICT.*

Output in bushels of bituminous coal, 8,011,268.

Output in tons of cannel, 30,978.

Employes for 1894: Maximum, 1,740; average, 1,232.

**BOYD COUNTY.**

[Output in bushels of 80 pounds.]

For calendar year 1894: Lump, 1,660,148; nut, 553,379; run of mines, 350,233; slack, 218,611; miscellaneous, 9,112. Total, 2,791,483.

**ASHLAND COAL AND IRON RAILWAY CO.'S MINES.**

For the larger part of the year only one mine, the Rush (No. 6) was in operation, the tippie at the new mine, Grant (No. 7), having been destroyed by incendiaries during the long strike. Officers of the Company are: Douglas Putnam, President; Robert Peebles, Secretary; E. C. Means, Superintendent; James Heron, Mine Superintendent. Head office, Ashland. P. O. for the mines, Rush.

The output of the two mines is given above.

On account of the long strike, these mines were inspected but once. The Assistant visited the county in June, hoping to examine the mines, but found them idle. On October 9 the Rush mine was inspected by Mr. Grider, but the Grant was still idle. Plenty of air was found traveling through the entries and air-ways, but a number of deep rooms were not sufficiently ventilated, the air not having been sent through them. Drainage and timbering were good. Notice (553) was served to remedy the defects.

**CARTER COUNTY.**

Output of bituminous coal in bushels for 1894: Lump, 333,506; nut, 154,340; run of mines, 1,227,707; slack, 14,491; pea, 21,120; pea and slack, 49,870; pea and nut, 12,643; miscellaneous, 5,400. Total, 1,819,077.

Output of cannel, 12,503.20 tons.

On account of the strike, the mines in this county received only one inspection. Most of them were idle four months; some of them for five. The county was visited by the Assistant Inspector in June, but he found the mines idle. The next visit was made in October.\*

All inspections in the county were made by the Assistant Inspector.

#### MUSIC MINE.

Near Music.

P. O. Music.

Operated by Lexington and Carter County Mining Company. R. H. Courtney, President; E. D. Sayre, Vice President; J. T. Vance, Secretary; P. B. Gilderoy, General Superintendent. Head office, Lexington.

Output of bituminous coal in bushels for 1894: Lump, 10,774; nut, 4,416; run of mines, 31,274; slack, 225. Total, 46,689.

No. 7 was inspected on October 25th. At the time, the mine (a new opening) was temporarily idle. Only two cross entries had been turned. There were working places for about 20 diggers. The working places were well propped and drained, and no dangerous top was noticed on the entries. The mine had not been provided with artificial ventilation. Notice to comply with the law in that respect was given.

#### STINSON MINES.

Near Music.

P. O. Music.

Operated by the Lexington and Carter County Mining Co. (See Music.)

Output of bituminous coal in bushels for 1894: Lump, 39,810; nut, 18,747; run of mines, 336,791; slack, 4,756. Total, 400,104.

Output of cannel in tons, 11,410.20.

*Stinson No. 2* was inspected on October 5th. The bank was nearly worked out, only a few stumps on the 1st Right Entry remaining. Except that there was no artificial ventilation, the mine was in good condition. The proper notice was served.

\* For length of suspension at each mine, see "Strikes."

*Stinson No. 3* was inspected on October 5th. All the entries but one were driven from daylight to daylight, and most of the rooms were driven up to their limit, so that the bank was chiefly on stumps and pillars. The drainage of the mine was good, and, excepting that in a few of the rooms props were not set close enough to the face, the timbering was fair. The mine was without artificial means of ventilation. Proper notice was served.

*Stinson No. 6*, when inspected on October 5th, was a small opening, in which only sixteen miners were employed. It was without artificial ventilation; otherwise, it was in good condition. Proper notice was served.

#### MT. SAVAGE SEMI-CANNEL MINE.

Near Mt. Savage.

P. O. Music.

Operated by the Lexington and Carter County Mining Co. (See Music.)

Output of bituminous coal in bushels for 1894: Lump, 47,777; nut, 10,628; run of mines, 387,416. Total, 445,821.

When inspected on Oct. 6th, enough air was entering the mine, but the ventilation was defective in that the current failed to reach many of the working places. Notice to remedy this was served. The bank was fairly well drained and timbered.

#### STRAIT CREEK MINE.

Near Denton.

P. O. Denton.

Operated by the Strait Creek Coal Co., M. M. Cassidy, President; W. T. Tibbs, Treasurer. Directors, M. M. Cassidy, W. T. Tibbs, and James Patrick. Head office, Mt. Sterling.

Output of bituminous coal in bushels for 1894: Lump, 109,611; nut, 69,720; run of mines, 184,500; pea and slack, 49,870. Total, 413,701.

Work was resumed on Oct. 8th. Two visits were made to the mine. On October 13th so little had been done toward cleaning up accumulations of fallen slate, etc., and the presence of armed men about the place, to protect the miners from assassins in ambush, presented such a war-like appearance that inspection was deferred.



On October 24th a complete inspection was made. The ventilation was quite defective, parts of the bank having no connection with the furnace. Moreover, the stoppings along the air-ways that had connection with the furnace were in bad condition. Props were not set close enough to the face in rooms, and there were pieces of loose slate hanging over the road, in rooms and in entries. The bank was quite wet, the water not having been bailed out since work was resumed, but the water-cars were running. Proper notice was given.

#### WILBURN MINES.

Near Denton.

P. O. Denton.

Operated by the Mary Coal Co., J. D. Hazelrigg, President; W. H. Strossman, Sales Agent and Secretary; Rolland Prichard, Superintendent of Mines. Head office, Mt. Sterling.

Output of bituminous coal in bushels, for 1894: Lump, 47,479; nut, 31,842; run of mines, 78,579; slack, 9,510; pea, 15,600; miscellaneous, 5,400. Total, 188,410.

Two visits were made to these mines, the first on October 13th, at which time work had not been resumed.

*Wilburn No. 1*, was inspected on October 24th. Work was resumed October 15th, but when visited it was still impossible to go through parts of the bank on account of water. Bailing was in progress. On Walters Entry the top was bad and untimbered. The rooms were fairly well propped. The ventilation was defective, especially so on the Walters Entry. This entry, however, lacked but a few feet of being driven to daylight, when it would become the principal intake, and greatly improve the ventilation of the entire mine. Proper notice was given.

*Mary No. 2* was inspected October 24th. It was a small opening, in which 8 miners were employed. It was without artificial ventilation; otherwise in good condition. Notice to provide proper ventilation was given.

#### LOST CREEK MINE.

Near Willard.

P. O. Willard.

Operated part of the year by the Eastern Kentucky Railway Company, (P. O. Riverton, Greenup county), and subsequently by George Duncan, Lessee.



Output in bushels for 1894: Lump, 45,427; nut, 12,935; run of mines, 16,667; pea, 5,520; pea and nut, 12,643. Total, 93,192.

The mine was inspected on October 23d, at which time there was no fire in the furnace. It seemed that with a fire in the furnace the ventilation would be good. No bad top or lack of timbering was noticed. Drainage was good. Notice with respect to ventilation was served.

#### LITTLE FORK MINE.

Near Anglin.

P. O. Anglin.

This mine, the property of the Little Fork Coal and Sand Co., which was idle in 1893, was operated for a short time in 1894 by E. G. Rice, A. B. Rice, and S. B. Huston.

Output in bushels for 1894: Lump, 27,128; nut, 6,052; run of mines, 40,880. Total, 74,060.

Under the Lessees the first shipment of coal was made August 4th, 1894. The coal was hauled to the railroad by wagon. Except that the bank was without artificial ventilation, the mine was in reasonably good condition.

#### STAR FURNACE MINE.

Near Kilgore.

P. O. Kilgore.

Operated by the Star Furnace Coal Co., J. M. Logan, President and Treasurer; C. W. Logan, Secretary and General Superintendent.

Output in bushels for the year 1894: Lump, 2,500; run of mines, 110,625. Total, 113,125.

When the Assistant Inspector was in the neighborhood of Kilgore, he understood that only 4 persons were employed in the mine, and he did not visit it. Either the information was incorrect, or the number of employes was subsequently increased. The company reports the maximum number of persons inside at any one time during the year, 55; outside, 15. Average number employed inside, 42; outside, 5.

This is practically a new mine, the tippie and incline being built in 1894, and is situated on the Star Furnace property, one and one-half miles from Kilgore. A railroad grade has been

made to connect the mine with the C. & O. R. R. at Kilgore, and the road is expected to be ready for traffic by April, 1895.

#### KENTUCKY BOGHEAD.

This mine, owned by the Kentucky Cannel Co., (or its successors), was active for but a short time. Operations have not been resumed since the shut down in April, and at last accounts there was no prospect of its starting again soon.

Output of cannel for 1894, in tons, 1,093.

#### GREENUP COUNTY.

As explained in preceding reports, the commercial cannel raised in this county is dug on the Hunnewell property of the Eastern Kentucky Railway Co., but the company does not do the mining.

Output of Hunnewell cannel for 1894, in tons, 1,572.73.

#### JOHNSON COUNTY.

Output of cannel for 1894, in tons, 16,902.35.

Maximum employes inside, 168; outside, 38    Average inside, 78; outside, 20.

All inspections in this county were made by Mr. W. U. Grider, Assistant.

#### WHITE HOUSE CANNEL MINE.

At White House.

P. O. Myrtle.

Operated by the White House Cannel Coal Co., Dr. Harry A. Wood, President; Col. Jay H. Northup, General Superintendent and Treasurer; F. T. D. Wallace, Secretary. Head Office, Louisa, Lawrence county.

Output of cannel for 1894, in tons, 13,446.

When this mine was inspected June 20th work was confined to Drifts No. 3 and No. 7.

*In Drift No. 3* only 4 persons were employed. The bank was in good condition. Since the former inspection a furnace has been built here in response to directions. No fire was in the furnace at the time of inspection, but none was required for the few persons under ground.

*In Drift No. 7* there were 35 persons, and the bank was without artificial ventilation. The drainage and timbering was fair. Notice (489) with respect to ventilation was given.

On October 10th the mine was again inspected and found to be in the same condition as when visited in June—still without artificial ventilation. Upon the matter being pressed upon the attention of the company, the evil was remedied.

#### SANDY RIVER CANNEL MINE.

At Myrtle.

P. O. Myrtle.

Operated by the Sandy River Cannel Coal Company., F. A. Stacey, President; J. P. Dieter, Treasurer; L. Q. Rousseau, Secretary. Superintendent of Mines, G. R. Bickford.

Output of cannell for 1894, in tons, 3,456.35.

When inspected June 20th work was confined to the 1st Left Entry, which was found to be well ventilated, drained and timbered.

On October 10th, the mine was again inspected. On this occasion there were but ten miners employed, and work was confined to the 2d Left Entry. All conditions were good.

#### LAWRENCE COUNTY.

Output of bituminous coal for 1894, in bushels: Lump, 1,288,625; nut, 125,875; slack, 379,937; pea, 107,400; miscellaneous grades, 193,088; miscellaneous, 67,500. Total, 2,162,425.

Maximum employes inside, 231; outside, 50.

Average employes inside, 192; outside, 34.

All inspections in this county were made by Mr. W. U. Grider, Assistant.

#### THE ANNIE MINE.

At Peach Orchard.

P. O. Peach Orchard.

Operated by the Peach Orchard Coal Co., John C. Welty, President; H. P. Scott, Treasurer; W. S. Howell, General Manager. General Office, No. 22, Pike Building, Cincinnati, O.

This company succeeded the Great Western Mining and Manufacturing Company on February 1st, 1894.

Output for 1894 is included with that of the Elizabeth Mine, the aggregate being as given above.

When inspected June 21st, the ventilation was defective, in that the rooms had no break-throughs and the air therefore traveled the entries only. The rooms were well propped and the entries fairly well timbered. Better drainage was required for the entries.

When again inspected, on October 11th, the mine was found to be very well drained. Plenty of air was entering the mine, but now many of the working places had been driven too far beyond the current and their ventilation was bad. The working places were well propped and considerable timbering had been done upon the entries ; no lack of timbering was noted.

#### THE ELIZABETH MINE.

At Peach Orchard.

P. O. Peach Orchard.

Operated by the Peach Orchard Coal Co. (See the Annie Mine.)

The output is included with that of the Annie Mine.

The mine was inspected June 21st, and the ventilation found to be defective, in consequence of the absence of break-throughs between rooms. The rooms were well propped and the entries fairly well timbered, as is so essential in this mine with its dangerous "draw slate." The bank was well drained.

On October 12th another inspection was made. Plenty of air was entering the mine but it was not caused to travel through the rooms, many of which were quite long. This failure to comply with former directions escaped attention at the time when it could be brought before the grand jury, at the succeeding court, but energetic steps will be taken to compel compliance with the law. The working places were well propped. Considerable timbering had been done on the entries, and no loose slate was discovered. The working places were dry, but the 7th Left entry was too wet.

#### LEE COUNTY.

Output of bituminous coal for 1894, in bushels : Lump, 721, - 167 ; nut, 243,889 ; run of mines, 132,125 ; slack, 37,004 ; mixed



lump and nut, 13,100; pea, 2,361; nut and slack, 66,537; miscellaneous, 22,000. Total, 1,238,183.

Maximum number of employes inside, 227; outside, 22.

Average number of employes inside, 142; outside, 10.

All inspections in this county were made by Mr. W. U. Grider, Assistant.

#### AVENT MINES.

Near Beattyville.

P. O. Beattyville.

Operated by the Avent-Beattyville Coal Co., E. P. Avent, President and General Manager; H. C. McConnell, Vice President and Treasurer; P. Wooldridge, Jr., Secretary.

Output for 1894 in bushels: Lump, 339,148; nut, 76,546; run of mines, 57,313; slack, 17,707; mixed lump and nut, 13,100; nut and slack, 36,123; miscellaneous, 16,250. Total, 566,187.

During the year an additional mine, No. 2, was opened, main entry driven 300 yards, and side entries turned off from it. A trestle about 100 yards long, connecting the mine with the tip-house, was erected. Rope haulage was also established.

*No. 1 Avent.*—When inspected June 25th the mine was found to be in good condition—well ventilated, drained and timbered. No. 2 mine had then been driven about 300 feet, and the trestle mentioned above was not quite finished.

Another inspection was made October 15th. The ventilative conditions had deteriorated. Enough air was passing through the mine, but it was not well distributed to the working places. Not much timbering had been done on the entries, but no dangerous top was discovered. The rooms were fairly well propped. The bank was very well drained.

*No. 2 Avent.*—The condition of this new mine was not good. Enough air was passing into the bank, but the entries and some of the rooms had been driven ahead of it. Props were not kept close enough to the faces of rooms. The Main Entry, at and near its head, was too wet; elsewhere the drainage was good.



## BEATTYVILLE MINES.

Near Beattyville.

P. O. Beattyville.

Operated by the Beattyville Coal Co., J. P. Amsden, President; Henry Landsberg, Secretary and Treasurer; A. S. Henry, General Manager.

Output for 1894 in bushels: Lump, 253,386; nut, 121,645; run of mines, 62,151; slack, 12,800. Total, 449,982.

During the year an additional mine, No. 2, was opened and furnace built to ventilate it. A new furnace was built for No. 1. A syphon line was laid to secure drainage.

*Beattyville No. 1.*—On June 25th this mine was found to be in excellent condition in every respect. The new ventilating furnace, with an ordinary fire, was passing 19,729 cubic feet of air per minute.

On October 15th it was found to be well ventilated and well drained, but not well timbered. No props had been set in a number of rooms on the Second Left and Zeik's entries. Attention was called to the fact that this was trusting too much to the strength of the top slate, and was apt to result in serious accidents.

## CRYSTAL CREEK MINE.

Near Beattyville.

P. O. Beattyville

Operated by the Crystal Creek Coal Co. Names of officers reported, without designation of titles: E. P. Avent, B. M. Hieatt, H. C. McConnell, and Allen Hieatt.

Output for 1894 in bushels: Lump, 128,633; nut, 45,698; run of mines, 12,661; slack, 6,427; pea, 2,361; nut and slack, 30,414; miscellaneous, 5,750. Total, 232,014.

On June 25th the mine was found to be well drained and reasonably well ventilated. Props were not kept close enough to the faces of rooms.

Another inspection was made on October 15th. An ample supply of air was entering the mine, but its distribution was bad, and the air-ways were very much out of order. The bank was well drained and timbered.

*SOUTHEASTERN DISTRICT.*

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Output of bituminous coal for 1894, in bushels, 19,306,976.

Output of cannel, in tons, 26,525.

Maximum number of employes inside, 3,610 ; outside, 613.

Average number of employes inside, 2,642 ; outside, 396.

**BELL COUNTY.**

Output of bituminous coal for 1894, in bushels: Run of mines, 883,901 ; slack, 37,696 ; mixed lump and nut, 109,184 ; pea, 4,608. Total, 1,035,389.

Output of cannel for 1894, in tons, 21,606.60.

All inspections in this county were made by W. U. Grider, Assistant.

**MARY HULL MINE.**

Pineville region.

P. O. Pineville.

Operated by the Log Mountain Coal, Coke and Timber Company. F. A. Hull, President ; H. P. Wyman, Vice President (Acting President) ; T. Cairns, Secretary and Treasurer.

Output of bituminous coal for 1894, in bushels: Run of mines, 8,356 ; slack, 37,696 ; mixed lump and nut, 109,184 ; pea, 4,608. Total, 159,844.

Output of cannel for 1894, in tons, 11,856.50.

When inspected on March 24th the mine was in very fair condition.

Another inspection was made December 22d, and the mine again found to be well ventilated, drained and timbered.

This mine was opened in 1893, but the first shipments were made in 1894. It is in the Clear Creek region of the Log Mountains, southwestwardly from Pineville, and is connected with the latter place by a railroad about twelve miles long.

**WEST PINEVILLE MINES.**

Near West Pineville.

P. O. Pineville.

Operated by the Breckenridge and Pineville Syndicate, Limited, (an English corporation) ; Wm. Hopper, Agent and Man-

ager ; George Bentley, Superintendent. General office, in Kentucky, Louisville.

Output of bituminous coal for 1894, in bushels : Run of mines, 875,545, being the total product.

Output of cannel for 1894, in tons, 9,750.10.

*Mine No. 1* was inspected March 23d, and was in reasonably good condition, having been much improved since the preceding inspection.

Another visit was made on December 22d, but the bank was idle and had been for two days. Neither the Superintendent nor Bank Boss was at the mine. It was understood that work would not be resumed until after the Christmas holidays. Hence no inspection was made.

#### KNOX COUNTY.

Output for 1894. (See North Jellico Mine.)

Inspections were made both by Chief and Assistant Inspector.

#### NORTH JELICO MINE

Near Grays.

P. O. Grays.

Operated by the North Jellico Coal Co., Jas. B. Speed, President ; I. P. Barnard, Vice President ; W. A. Jones, Secretary and Treasurer ; C. S. Nield, General Manager. General office, Louisville, Ky.

Output for 1894 in bushels : Lump, 659,209 ; nut, 136,787 ; run of mines, 8,112 ; slack, 39,313 ; mixed lump and nut, 630,123 ; pea, 272,901 ; miscellaneous, 75,000. Total, 1,821,445.

When inspected on March 26th the mine was in poor condition. The power of the furnace was sufficient to afford good ventilation, but the conduction of the air to working places was very much neglected, and the air, therefore, was bad in most of the working rooms. Entries were timbered but little. At one place on the Main, timbering was greatly needed. The drainage was good.

Another inspection was made December 15th. The mine was being ventilated by districts, there being a furnace for each district. Plenty of air was traveling each district to supply all demands at the time, but a number of the rooms were not

receiving air where needed. While the air would be sent through the rooms on one side of the entry, the rooms on the opposite side would be left without ventilation in consequence of the current being allowed to travel the entry, instead of being forced through them by means of a check curtain. The trouble was easily curable by the use of properly placed curtains, and directions to do so were given.

With the two furnaces now supplied this mine there is no good excuse for having any but excellent ventilation.

### LAUREL COUNTY.

Output for 1894 in bushels: Lump, 1,823,741; nut 474,153; run of mines, 2,692,628; slack, 68,504; mixed lump and nut, 711,782; pea, 116,552; miscellaneous, 642,066. Total 6,529,426.

Inspections were made by both Chief and Assistant Inspector.

### BUCKEYE MINE.

Between East Bernstadt and Altamont.

P. O. Altamont.

Operated by the Buckeye Coal Co., consisting of Dan'l Bledsoe, John Sayres, and Harlen Floyd.

Output for 1894, in bushels: Lump, 12,400; nut, 2,350; run of mines, 22,530; slack, 1,000; miscellaneous, 300. Total, 33,580.

This is an old mine that has been idle most of the time for several years. The earlier operations of the present company in 1894 were rather desultory. When visited in December, the bank had no artificial means for securing ventilation. The proper notice was given.

### WHISTLE HILL MINE.

Near East Bernstadt.

P. O. Bernstadt.

Operated by George Bailey.

This is a small mine, opened August 3, 1894. When visited in December, there were only three or four persons employed underground, but it was expected to increase the number.

Output shipped in 1894, in bushels, 5,614; all run of mines.



## PEACOCK MINES.

Near Pittsburgh.

P. O. Pittsburgh.

Operated by the Peacock Coal Co., Wm. R. Letcher, President; G. F. Anderson, Secretary; Charles Anderson, Superintendent.

Output for 1894, in bushels: Lump, 159,719; nut, 47,395; run of mines, 49,007; slack, 16,123; mixed lump and nut, 245,013; pea, 4,250; miscellaneous, 107,449. Total, 628,956.

*Main Bank.*—When inspected on April 7th, it was found that the ventilation had been allowed to fall a little behind in parts of the mine. One of the entries was very much too wet. The timbering was ordinarily good.

Another inspection was made August 23d, shortly after resumption of work at the close of the strike. The ventilation was defective, but an air-shaft was being sunk which would cure the defect. The Riley and Wallace entries were too wet, but the rooms were dry enough. No dangerous top was discovered.

A third inspection was made on December 13th. The air-shaft had been sunk and connection between it and the Whitely entry nearly completed—about three days' work being yet to do. Preparations for putting in the new furnace were under way. It appeared that with completion of the furnace and an air-way between shaft and Whitely entry, the bank would be in excellent condition. At the time of inspection what ventilation there was obtained by natural means.

*Peacock Left-Hand Bank.*—This was inspected on December 13th. There were only a few persons engaged underground, but the ventilation was not sufficient, either as to quantity of air entering the bank, or the distribution thereof.

## UNION MINES.

Near Pittsburgh.

P. O. Pittsburgh.

Operated by the Union Coal Co., T. Jeffrey, President; John Jeffrey, Manager.

Output for 1894, in bushels: Lump, 57,540; nut, 17,467; run of mines, 279,874. Total, 354,881.

*Union No. 1 Mine* was visited April 10th, but a heavy rainfall on the 9th had so flooded the bank that such an inspection



as was necessary to determine its general condition could not be made.

A second visit was made on August 24th, at which time the bank was inspected, and found to be well ventilated, drained and timbered.

A third inspection was made November 23d. On this date the head of the Second Right Entry was ahead of the air. Elsewhere the ventilation was good. The Main Entry was too wet, but the rooms were dry. The timbering was good.

On December 12th, at night, the Chief Inspector visited the mine; but, since it had so recently been inspected in detail by the Assistant, made only such examination as was necessary to give a general notion of the condition of the bank, which was very fair.

*Union No. 2.*—This is a new opening. It was inspected on August 24th, when fourteen persons were engaged underground, and was found in bad condition. It was without ventilation, and the drainage and timbering were poor.

A second inspection was made November 23d. At this time the conditions were fairly good. There was but one entry, the rooms had been driven to their limit, and the work was thus on room pillars. Nine miners were at work.

#### PITMAN MINES.

Near Pittsburgh.

P. O. Pittsburgh.

Operated by the Pitman Coal Co., W. A. Pugh, President; S. V. Rowland, General Manager; Wm. McNeil, Superintendent.

Output for 1894, in bushels: Lump, 218,745; nut, 79,610; run of mines, 565,095; mixed lump and nut, 43,500; pea, 34,990; block, 127,415; miscellaneous, 10,500. Total, 1,079,855.

The *East* and *West Banks* were inspected April 10th. An abundance of air was entering each bank, but it was not traveling through the rooms in a systematic way. The heads of some of the entries were too far past the air. Break-throughs were needed between some of the rooms in the West Bank. In the East Bank props were not kept close enough to the faces of rooms. The drainage was fairly good.

A second inspection of the mines was made August 23d. The air-ways were well up with the entries, and there was plenty of air traversing them, but there was still cause for complaint on account of the current not being distributed properly to every working place. It was also noted that the matter of setting props close enough to the room-faces was still neglected.

On December 13th the mines were inspected a third time. The *West Bank* was in a satisfactory condition as to ventilation, and the East Bank was in fair condition. In the latter bank a small change was needed in 1st and 2d Left entries. In the 1st Left it was necessary to close the mouths of the first two rooms on the left inside the door, in order to make the ventilating current travel the break-throughs between the upper rooms. In the 2d Left it was necessary to regulate the split of air that was traveling through the right hand-rooms inside the curtain so as to send a larger split into the left-hand rooms.

#### VICTORIA MINE.

Near Pittsburgh.

P. O. Pittsburgh.

Operated by the Victoria Coal Company, Lewis Baxter, President; J. E. Carnell, Secretary; J. J. Hughes, Treasurer.

Output for 1894, in bushels: Lump, 77,403; nut, 37,397; run of mines, 268,631; mixed lump and nut, 77,264; pea, 16,950; block, 34,113; miscellaneous, 9,375. Total, 521,133.

On April 10th enough air was entering the mine, but the system of conducting it was defective. Some untimbered bad top was found on the 6th Right entry. The Main entry was poorly drained.

The mine was closed shortly after the April inspection, by the strike, and when again inspected, on August 24th, shortly after resumption of work, it was found to be more defective than before. The supply of air was deficient, and its distribution and conduction through the mine was unsatisfactory. Loose top was noted on the 7th Right and 7th Left entries, and the 7th Right was wet near the head.

A third inspection was made on November 23d. Enough air was now entering the mine, but the stoppings (chiefly cloth), which had been put up, were leaky, especially on the 7th Right.

and 7th Left entries, which of course resulted in defective ventilation at the head of the entries. The timbering was deficient in several places. The entries required better drainage.

On December 14th there were evidences of efforts being made to improve the condition of the mine.

#### WELSH MINE.

Near Pittsburgh.

P. O. Pittsburgh.

Operated in 1894 by the Welsh Coal Co. ; at the date of this Report, by the Pittsburgh Coal Co. In the yearly report of the "Welsh Coal Co.," no officers are named, but the names of C. S. O. Tintzman, J. E. Hurlington and W. Welsh are given. Presumably they constituted a firm.

Output for 1894, in bushels : Lump, 146,560 ; nut, 6,900 ; run of mines, 448,918 ; slack, 4,300 ; mixed lump and nut, 35,200 ; miscellaneous, 3,750. Total, 645,628.

On April 7th the mine was without sufficient ventilation, and the drainage and timbering were poor.

Another inspection was made August 22d. There were 59 persons in bank and the furnace was drawing 5,902 cubic feet of air per minute—just enough. There were a number of rooms more than 60 feet long through which the current did not pass. Setting props in the rooms was very much neglected. The drainage was bad. This mine is one of the wet places about Pittsburgh, being admirably situated so as to gather water.

A third inspection was made November 22d. On this date the conditions were much better than at the preceding inspection. The drainage was fair. The timbering along the entries was reasonably good, though one place on the 2d Right entry needed timbering. The rooms were well propped. There were a few rooms ahead of the air, but not very much so. Upon the whole, the mine was in fair condition.

During the year 12 tenement houses, a new tip-house, and 10 new coaling bins were built.

#### DAISY MINE.

Near Pittsburgh.

P. O. Pittsburgh.

Operated part of the year by the Daisy Coal Co., and the remainder of it by the Welsh Coal Co. The Daisy Co. was an

association of miners, with G. W. Fields as Secretary, and A. L. Delph as General Manager. Communications addressed to the Secretary asking for report of output were unanswered, but through Mr. John Pitman (from whom the mining right was leased) and the Welsh Coal Co., the product for the year was finally obtained.

Output for 1894, in bushels: Lump, 26,800; nut, 6,800; run of mines, 26,155. Total, 59,755.

The Daisy mine is practically a part of the old Pitman Co.'s mine, and the coal is tipped and screened at the old Pitman tipple.

The Welsh Coal Co. took control of the mine, under a lease, on November 1st. When the mine was first visited, in August, little attention had been paid to ventilation, etc., by the parties then in control of it. It was inspected November 22d. Nineteen persons were employed underground, all being in the 1st Left entry. An air-shaft had been sunk on that entry, but no artificial means for ventilation had yet been provided. The entry was quite wet, but the rooms were dry enough. Timbering was good.

#### LAUREL MINE.

Near Pittsburgh.

P. O. Pittsburgh.

Operated by the Laurel Coal Company, George Givens, President; J. W. Bastin, Secretary.

Output for 1894, in bushels: Lump, 266,066; nut, 63,085; run of mines, 441,480; slack, 2,230; mixed lump and nut, 97,730; pea, 11,130; miscellaneous, 22,840. Total, 904,561.

On April 9th there was an abundance of air entering the mine, and it reached most of the working places, but missed some. Props were not kept as close to the room-faces as they should be. Drainage was good.

Another inspection was made August 22d, about a month after the termination of the strike. The air was traveling the entries instead of being sent through the rooms. Brattices and curtains were in bad condition. Props were not set close enough to room-faces; in some rooms they were very much too far back. (This failure to have fore-set posts close enough to room-faces, after attention is called to it by the Inspector, may play



an important part in the evidence of a damage suit some day.) Better drainage was needed on the entries.

A third inspection was made December 14th. The ventilation was very poor; neither enough air entering the mine nor a proper distribution of what did enter. The power of the furnace is quite sufficient to give this bank excellent ventilation, and there is no good excuse for not having it. Information as to the failure of the company to comply with notices to send the air through rooms, so as to keep within 60 feet or less of working-places, has been forwarded to the Commonwealth's Attorney.

#### STAR MINE.

Near East Bernstadt.

P. O. Bernstadt.

Operated by the Star Coal Co., J. McNeill, President; R. J. Morris, Secretary; Geo. Harrison, Superintendent.

Output for 1894, in bushels: Lump, 119,025; nut, 26,327; run of mines, 17,378; slack, 5,000; miscellaneous, 2,300. Total, 170,030.

Inspected April 12th. The ventilation was good, but the timbering and drainage were defective.

Again inspected August 25th. Some defects were noted in the conduction of the air to the working-places, and the entries were a little wet in places.

A third visit was made December 12th, but only a partial inspection could be made. The mine was not running, and the ventilative condition could not well be ascertained. It was clear, however, that the Collins & Heron entry (new work) was without ventilation, and notice was served to that effect.

#### LITTON MINE.

Near Pittsburgh.

P. O. Pittsburgh.

Operated by the Litton Coal Co., composed of W. J. Litton and Caleb Litton

Output for 1894, in bushels, 112,092, all reported as run of mines.

This mine has been in poor condition most of the year. From March 1st up to the end of the year it was in an assignee's hands, but worked by C. Litton, and it has been



difficult to accomplish anything towards bettering its condition. The matter, however, will not be permitted to rest as it now stands.

#### STANDARD MINES.

Near East Bernstadt.

P. O. East Bernstadt.

Operated by the Standard Coal Co., otherwise Pearl, Thompson & Co. Just who compose this company is not definitely known to the Inspector. Mr. James M. Thompson is in general charge, but for some reason, or by oversight, the "names of officers of company or members of firm" are omitted from the yearly report sent to this Office.

Output for 1894, in bushels: Lump, 26,200; nut, 5,110; run of mines, 77,080; slack, 800; mixed lump and nut, 5,000; miscellaneous (block and steam), 164,000. Total, 278,190.

*Standard No. 1.*—This is a new mine, the opening of which was completed in January, 1894. When inspected on April 14th about 20 men were employed in it. Artificial means for ventilation had not been provided, but the air was not very bad. The bank was well drained and timbered.

The mine was closed by the general strike a few days after the April inspection, and nothing was done toward procuring artificial ventilation in the time intervening between the beginning and termination of the strike. It is understood that no work was allowed to be done at the mine during the suspension. Accordingly, when inspected August 27th, the mine was still depending on natural means for ventilation. With that exception, and the insufficient propping of one room, the mine was in good condition.

On December 12th the mine was found still without artificial ventilation, and the bank had no ventilation where needed, the atmosphere being very unwholesome in the upper part of the 1st Right entry, where the work was. Information covering this case was forwarded to the Commonwealth's Attorney.

#### MANCHESTER MINE.

Near East Bernstadt.

P. O. Altamont.

Operated by the Manchester Coal Co., John W. Harris, Treasurer; A. W. Harris, Superintendent; C. R. Coleman, Secretary.

Output in bushels for 1894: Lump, 158,934; nut, 41,606; run of mines, 37,631; mixed lump and nut, 15,212; pea, 11,364; pea and nut, 17,094; steam, 53,795; miscellaneous, 3,750. Total, 339,386.

The mine was visited April 14th, but was so full of water that but little of it could be inspected. A pump was being put in. Artificial means of ventilation had not been provided.

Another inspection was made August 27th. There was now a sufficient volume of air entering the bank, but it was not well conducted to the working-places. The bank was very wet.

A third visit was made to the mine, December 12th. The bank was idle and a satisfactory inspection could not be made.

On December 20th a fourth visit was made, and again the mine was idle. But, since steam was up in the boiler, (the bank is ventilated by exhaust steam), it was possible to make an inspection. A large surplus of air was entering the bank, there being 12,100 cubic feet for 55 persons, but it was not equally well distributed through the workings. In most places, however, the ventilation was fair. Timbering was tolerably good. The drainage question has been a serious one at this mine. During the year a new boiler, pump and pump fixtures were put in.

#### DIAMOND CO.'S MINES.

Near East Bernstadt.

P. O. Altamont.

Operated by the Diamond Coal Co., J. D. Smith, President; H. C. Thompson, General Manager.

Output for 1894, in bushels: Lump, 270,372; nut, 9,151; run of mines, 203,615; slack, 2,000; lump and nut mixed, 181,929; pea, 37,868; block, 52,789; steam, 1,466; miscellaneous, 9,375. Total, 868,565.

*Diamond Mine.*—Inspected April 13th. Though the mine was provided with a furnace, all effort at artificial ventilation had been abandoned, and the air throughout the mine was very bad. Except at the entrance to the mine, the entries were not well timbered, but no bad top was discovered. Props were not set as close to room-faces as should be done. Drainage was good.

A second inspection was made August 27th, and the ventila-

tion again found to be defective, with respect both to volume of air and its distribution. The condition of the mine had been much improved, however, since the preceding inspection. The furnace was in operation, drawing 9,224 cubic feet of air per minute; but there were 135 persons in bank. The lack of intake air appeared to be largely due to the smallness of the air-way leading to the furnace and of the one back of it.

A third inspection was made December 12th. There was then just about enough air entering the furnace to supply the 75 or 80 persons in bank, but part of it was derived from leaks that were of no service in ventilating the mine. Notice was given to stop off the leaks, and bring the ventilating current up to within 60 feet or less of all working-faces.

*Wilson Drift.*—Inspected August 27th. Twenty persons were engaged in the bank. No artificial ventilation had been provided. Drainage was very bad, and very little timbering had been done.

A second inspection was made December 12th. There was an air-shaft on the left near the mouth of the drift, but there was no fire in it. The mine had no ventilation, and would have had none even with a fire in the shaft, since the latter was set to one side and no attempt made to utilize it. It is proper to state, however, that for a time following the August inspection, the bank was provided with artificial means, a connection having been made with the furnace in the Diamond Drift. But it was found that the furnace there did not have power enough to ventilate both banks, so the connection was stopped. Arrangements were under way at the time of this inspection to provide the drift with another shaft. If the propositions discussed with the Inspector were carried out, the mine ought now to have good ventilation.

#### LILY MINE.

At Lily.

P. O. Lily.

Operated by the Lily Coal Co., J. A. Craft, Proprietor; Thos. J. Tapp, General Manager.

Output for 1894, in bushels: Lump, 283,577; nut, 130,955; run of mines, 37,553; slack, 37,051; mixed lump and nut, 10,934; miscellaneous, 21,130. Total, 521,200.

Inspected February 17th. The intake of air was ample, but it was not conducted to all the working-places. The drainage was good, except on the 3d Left entry. Timbering had been neglected to a dangerous degree. This was especially true of a part of the Main and all of the 1st Right entries. Proper notice was served.

A second inspection was made August 15th. On this occasion the ventilation was found to be good, except toward the head of the 1st Right entry. Considerable timbering had been done since the preceding inspection, but there was still some lack of timbers. The top was bad. The 1st Right entry was very much too wet.

A third inspection was made December 14th. At this time the ventilating current, while ample at the start, did not reach the working-places in sufficient volume. The larger part was lost by leakages before reaching the first entry where needed. The roof of the Anderson entry was in a dangerous condition.

#### PULASKI COUNTY.

Output for 1894 in bushels: Lump, 210,879; nut, 189,166; run of mines, 635,889; slack, 51,211; mixed lump and nut, 146,478; pea, 4,100; miscellaneous, 53,895. Total, 1,291,618.

All inspections in this county were made by the Assistant Inspector.

#### PARIS MINE.

At Cumberland Falls.

P. O. Parker's Lake.

Operated by the Paris Coal Co., J. C. Souleyrett, General Manager.

Failing to obtain track connection with the railroad, little was done in the way of output. Out of 5,000 bushels put out, only 1,000 bushels were shipped.

When visited in April little was doing at the mine, which had been opened but a short time. When again visited, in November, it was idle.



## INDIAN CREEK MINE.

At Parker's Lake.

P. O. Parker's Lake.

Operated by the Commercial Coal Co. up to May. After that by the Indian Creek Coal Co., a firm composed of H. M. Dye, W. J. LaRue and Joe C. Parker.

Output for 1894 in bushels: Total, all run of mines, 163,878.

Inspected April 19th. An air-shaft had been sunk and provided with a stack subsequent to the preceding visit (December 1893), but no furnace had yet been built and no arrangement had been made for the conduction of air through the bank. The mine, which was not much more than started in December, 1893, was still small at the time of this visit. It was being operated by the Commercial Coal Co. Notice to provide ventilation in accordance with legal requirements was given.

The mine was again visited in November. On the 17th the bank was idle and the Bank Boss was absent; hence no inspection was made. On the 20th the bank was inspected and found to be fairly well drained and timbered, and improved as to ventilative arrangements. Some of the working-places were ahead of the air, however, and in the air-ways slate and slack had been allowed to accumulate in many places.

During the year, much improvement was made in the facilities for shipping, in the way of tram-way, tipple, and screens. A siphon system was also put in, and the stock of mine cars added to.

After the November inspection, assurances were received from the company that all the break-throughs that were, in November, filled with slack had been cleaned, and other things done to comply with the complaint notice.

## "GREENWOOD" AND "BEAVER CREEK" MINES.

These mines were reopened in the Spring and operated for a short time, by various parties, but not much was done.

The total output for the two mines, during the short time they were operated amount to 75,370 bushels, of the following grades: Lump, 16,763; nut, 22,410; run of mines, 29,097; slack, 7,100.



## COGAR CREEK MINE.

Near Flat Rock.

P. O. Flat Rock.

Operated by the Cogar Creek Coal Co., W. L. Munson, President; W. V. McKnight, Secretary and Treasurer; C. H. Boyer, General Manager; S. C. Boyer, Superintendent; J. H. Boyer and J. W. Smith, Directors.

Output for 1894, in bushels: Lump, 16,432; nut, 40,047; run of mines, 67,961; slack, 8,786; mixed lump and nut, 56,118; miscellaneous, 12,500. Total, 201,844.

Inspected April 19th. It was in reasonably good condition.

Another visit was made November 17th. The mine was idle, and with no fire in the furnace the volume of air supplied could not be ascertained. There was reason to conclude, however, that with a fire in the furnace the ventilation was fair. The timbering was fairly good. The drainage of the Main entry was poor.

This was quite a new mine in the Spring and the entire equipment was procured in 1894. An incline 900 feet long from tip-house to No. 1 Drift was built; a 45 H-P. engine, with hoisting rig (using wire rope), was purchased and set up; a tram-road, 900 feet long, was built from No. 1 to No. 2 Drift; and ten dwelling-houses and a tip-house were erected.

## ALPINE MINES.

At Alpine.

P. O. Alpine.

Operated by the Richmond Coal Co., Theodore Richmond, President; A. S. Glover, Secretary and Treasurer; E. A. Foster, Superintendent.

For the larger part of the year the mines were operated by Howard & Bruner, under lease from the Richmond Coal Co. The company resumed control August 1st, and has conducted the operations since.

Output for 1894, in bushels: Lump, 22,500; run of mines, 244,325; slack, 30,325; miscellaneous, 5,625. Total 302,775.

There are several drifts here.

On April 18th three of the banks were examined. They were fairly well timbered and drained. Natural means were depended upon for ventilation, and the result was about as good as could

be obtained by that untrustworthy method. Directions were given to adopt proper ventilating means.

On November 19th *Drift No. 2* was again inspected. The timbering and drainage were good. Artificial ventilation had not yet been provided, but doors had been put in so as to better the natural ventilation, which was as good as could be expected. In *Drift No. 6* a temporary furnace had been put in, and the ventilation was very good. The drainage was good, and the timbering fairly so.

#### BARREN FORK MINES.

Near Barren Fork Station.

P. O. Flat Rock.

Operated by the Barren Fork Mining and Coal Co., J. T. Slade, President and Manager; W. L. Threlkeld, Vice President; W. F. Warren, Treasurer; Charles Edge, Secretary; J. H. Holland, Superintendent at mines. Head office, Lexington, Ky.

Output for 1894, in bushels: Lump, 155,184; nut, 126,709; run of mines, 125,628; slack, 5,000; mixed lump and nut, 90,360; pea, 4,100; parlor lump, 9,971; nut and slack, 5,799; miscellaneous, 20,000. Total, 544,751.

Inspected April 17th. Although one part of the mine is provided with a fan of sufficient power to effectually ventilate the entire bank if proper arrangements were made, at the date of this inspection natural means were depended upon altogether. Timbering was somewhat neglected in some of the rooms, and the entries were rather wet—the working rooms, however, being dry.

Another inspection was made November 20th. The mines were now in excellent condition, except that in some of the rooms the line of fore-set posts was not kept close enough to the face.

During the year a new shaft for No. 8 Entry was sunk.

**ROCKCASTLE COUNTY.****PINE HILL MINE.**

Near Pine Hill.

P. O. Pine Hill.

This mine, the property of the Pine Hill Coal and Iron Company, was idle nearly all the year. In December Mr. W. M. Gay took control of it under a lease, and put out 20,000 bushels of coal.

**WHITLEY COUNTY.**

Output for 1894, in bushels : Lump, 3,350,145 ; nut, 1,212,197 ; run of mines, 1,698,457 ; slack, 433,645 ; mixed lump and nut, 631,139 ; pea, 322,345 ; miscellaneous, 961,170. Total, 8,609,098.

All inspections were made by the Assistant Inspector.

**TOW WAD MINE.**

Near Pine Knot.

P. O. Pine Knot.

Operated by Bryant Bros., a firm composed of D. E. Bryant and L. E. Bryant.

Output for 1894, in bushels : Lump, 29,398 ; nut, 23,069 ; run of mines, 10,558 ; slack, 4,195 ; mixed lump and nut, 175,330. Total, 242,550.

Inspected April 16th. Since the preceding inspection a shaft had been sunk, but no furnace had been put in. The ventilation was still bad. Drainage and timbering were also defective. Proper notice was given.

Another inspection was made November 16th. It was found that notices hitherto had not been complied with. The mine was in very bad condition. The matter was referred to the Commonwealth's Attorney, since, so well as could be judged, the operators manifested no disposition to obey the law until it suited their own pleasure to do so. Sometime after the necessary affidavit had been filed, word was received from the operators that they had put in a furnace, and had done other things to put the mine in good shape.

**JELICO AND BIRDEYE MINES.**

At Halsey.

P. O. Halsey.

Operated by the Jellico & Birdseye Coal Co., E. T. Halsey, President ; G. M. Fletcher, Secretary ; T. McGlohon, Superintendent.

Output of bituminous for 1894, in bushels: Lump, 427,394; nut, 65,304; run of mines, 123,690; slack, 75,075; mixed lump and nut, 140,037; pea, 19,065; nut and slack, 22,915. Total, 874,040.

Output of birdeye cannel, in tons, 4,918.

There are several distinct banks here. One is known as the "Vanderpool" (bituminous), one as the "Jellico" (bituminous), and the others as the "Birdeye" drifts. The coals have been described in a preceding Report.\* I am satisfied that the "bird-eye cannel" is simply a phase of the Jellico bed.

In March, when the region was visited for the purpose of inspection, the mines were idle.

*Vanderpool Mine.*—This was inspected August 13th and the ventilation found defective. The current was insufficient, and the air-courses were not up with the entries. Timbering and drainage were good.

When again inspected, December 15th, the condition of the mine had been improved, but the volume of air was still insufficient; a better stack was needed at the air-shaft. The distribution of the air that was entering was good. Drainage and timbering were good.

*Jellico No. 3 Mine.*—Inspected August 13th. Very little work had been done in the mine since the preceding inspection (December 1, 1893), and its condition had changed but little since then.

When visited again, December 15th, the mine was idle.

*No. 4 Birdeye Mine.*—Inspected August 13th. Thirty persons were employed in the mine, and natural means were depended upon for ventilation. There was some bad top on the Main entry, Drift No. 1, and not enough timbering. Better drainage throughout the mine was required. The coal was being wrought by long-wall system. The output was being hauled to the railroad by wagons.

When visited again, December 15th, the mine was idle.

*No 1 Birdeye Mine.*—Inspected August 13th. There were but eight persons underground. Artificial ventilation had not

\* Report of this office, 1893, p 177.



yet been provided. The bank was very well drained and timbered. The output was being hauled to the railroad by wagons.

When visited again, December 15th, the mine was idle.

*No. 2 Birdeye Mine.*—On August 13th this bank was just being opened. Only three persons in it. On December 15th it was idle.

#### PROCTER MINE.

At Red Ash.

P. O. Red Ash.

Operated by the Procter Coal Co., W. E. Grinstead, President; H. C. Grinstead, Secretary and Treasurer; W. T. Lewis, General Manager. Head Office, Louisville, Ky.

Output for 1894, in bushels: Lump, 695,475; nut, 189,000; run of mines, 440,675; slack, 141,675; mixed lump and nut, 107,925; pea, 21,950; nut and slack, 72,775; miscellaneous,\* 120,800. Total, 1,750,275.

Inspected March 21st. The supply of air entering the mine was sufficient, but there were a number of working-places to which it was not conducted. There was some bad top, and in places the entries were not sufficiently timbered. The drainage was bad in several places.

Again inspected August 14th. The mine was subject to the same criticism with respect to distribution of the air as in March—while the intake current was ample, it failed to reach many of the working places. A good deal of timbering had been done since the March inspection, and the bank was in fairly good condition in this respect. Some of the entries were too wet.

Again inspected December 18th: No. 1. The mine was found in much better condition than when examined in August. There was yet, however, a failure to keep the air systematically up within the 60-foot limit; a number of working-places were too much ahead of the current. The Grubbs entry was too wet. Elsewhere the drainage was fair. Some loose slate on the Evan Evans and the Kensey entries needed to be taken down.

No. 6. A couple of rooms on the Logan entry needed better propping; other rooms were fairly well timbered. Near the

\* Probably also includes some "miscellaneous" for Grinstead mine.



middle of Main or Straight Six entry, for a distance of about 100 feet, there was entirely too much water; in places the water stood over the top of the tram rail. There were 19 men employed on this entry, who were compelled to travel through the water in going to and from their work, except when they could "catch a ride." The failure to keep this place drained has been complained of before, and it seems as if recourse to the court is the only effective way in which to have it remedied. The ventilation of this entry was also very poor—not enough air reaching the working-places. Elsewhere in the bank the conditions were better, but not good. Enough air was passing on the entries, but many of the rooms were more than 60 feet long, and yet the air had not been sent through them.

#### GRINSTEAD MINE.

At Red Ash.

P. O. Red Ash.

Operated by the Procter Coal Co. (See Procter Mine.)

Output for 1894, in bushels: Lump, 383,250; nut, 16,550; run of mines, 28,075; slack, 15,150; mixed lump and nut, 116,025; nut and slack, 72,700; nut, slack and pea, 216,100. Total, 847,850.

Inspected March 21st. This mine was opened during 1894. At the time of this inspection it was quite new. It had two shafts, and was ventilated by fire-baskets hung in the shafts. The mine was not working, hence there was no fire in the baskets, and the volume of air entering the bank when it is in operation could not be determined. Very little timbering had as yet been done on the entries.

Inspected August 14th. This inspection developed the fact that the volume of air supplied the mine was insufficient. Two 11-foot ventilating fans had been received however, and the conditions were such that when they should be put up the ventilation should be good. Timbering had been somewhat neglected, both on entries and in rooms. The drainage was good.

Inspected December 19th. The mine was in good condition, being well ventilated, drained and timbered.

## DOWLAIS COLLIERY.

At Dowlais.

P. O. Jellico, Tenn.

Operated by the East Tennessee Coal Co., E. J. Davis, President and General Manager; B. A. Jenkins, Secretary and Treasurer.

Output for 1894, in bushels: Lump, 509,675; nut, 102,075; run of mines, 255,375; slack, 68,900; nut and slack, 203,850. Total, 1,139,875.

Visited March 17th. All mines were idle, and, therefore, were not inspected. It was ascertained, however, that artificial means for ventilating the New Mine had not yet been provided.

*The Old Mines*, ("No. 6 Drift Bank" and "No. 3 Drift Bank"), were inspected August 8th. The intake of air was sufficient to give good ventilation, but the current was not kept well up to the working-places. There were too many losses by leakage. Some loose top was noted on the 10th Left entry of the "No. 6 Drift Bank," and the Main and 9th Left entry were too wet. On the Jenkins entry of the "No. 3 Drift Bank" there was quite a pond of water.

*The Old Mines* were again inspected December 14th. The "*No. 6 Drift Bank*" (referred to in the inspection notice served on the company as "Mine No. 1") was idle. There was no fire in the furnace, the inspection, therefore, was unsatisfactory with respect to ventilation. Some of the working-places were too far ahead of the course for the air current. With this exception the arrangements for ventilation seemed good. The rooms were well propped. On entries 9 and 10, Left, there was some loose top that should have been taken down. In the "*No. 3 Drift Bank*," (referred to as "Mine No. 2" in the notice served on the company), 22 persons were employed. Work was confined to three entries, and was on stumps and pillars. The working-places were very well drained and propped. A door on the Ross entry was down, which rendered ventilation defective. With the door in place, ventilation would have been good.

*The New Mine* was inspected August 9th. Since the March visit a temporary furnace had been put in. It had sufficient power for the size of the mine and number of persons (37) employed underground. The coursing of the air through the

workings, however, was defective. Better drainage was required in the 1st and 2d Right entries. (In the notice served on the company after this inspection this bank was referred to as "Mine No. 2.")

Another inspection was made December 13th. The ventilation was fair. The rooms were very well propped. The Main entry required better drainage; elsewhere the drainage was fairly good. Except at the mouth of the Main entry, the entries were not timbered. Along the entries the roof scales and falls in heavy pieces; at the time of this inspection, however, no loose pieces were noticed.

#### KENTUCKY BIRDEYE MINE.

Near Halsey.

P. O. Halsey.

Operated by the Kentucky Birdsey Coal Co., George Zoeller, President; James M. Toner, Secretary and Treasurer. Head office Chattanooga, Tenn.

Output for 1894, in bushels: Lump, 41,035; nut, 25,474; run of mines, 17,903; mixed lump and nut, 337; nut and slack, 2,143. Total, 86,892.

This is a new mine, quite new at the time of its first inspection, August 13th. The main entry had been driven 200 feet, and from that two entries had been turned to the right, the first of which had been driven 160 feet, and the second 80 feet. No rooms had been opened. Ten persons were at work underground. The mouth of the bank is 180 feet above the tip-house, and is connected with it by an incline 700 feet long. The screens and hoisting drum were not in place, and no shipments had been made. The underground conditions were good. The seam worked is the "Jellico," which, where opened, is about 33 inches thick.

A second inspection was made December 17th. The mine was in good condition, being well ventilated, drained and timbered.

#### THE ROSS MINE.

Near Williamsburg.

P. O. Williamsburg.

This mine was visited December 14th, under the impression, gained from general report, that it was subject to the mining

law. It was then being worked by Mr. W. H. Ross, purely for local purposes, and there were only four persons employed underground. Mr. Ross stated, however, that he expected to employ about fifteen miners as soon as there was room for them. Since the mine was not provided with artificial means for ventilation, notice was served that when over five persons should be employed underground artificial ventilating means should be provided. Subsequently Mr. Ross wrote that shortly after receipt of the notice he gave up his lease and passed the bank to other hands. So far as has been learned, the bank is still run only for local purposes, and is not yet subject to the mining law.

#### KENSEE MINES.

At Kensee.

P. O. Kensee.

Operated part of the year by the Main Jellico Mountain Coal Company (owner). On October 1st leased for a term of years to the Hywel Davies Coal Company. Officers of the latter company are: Bannen Coleman, President; Hywel Davies, General Manager; R. H. Gayle, Secretary; Wm. Jones, Superintendent.

Output for 1894, in bushels: Lump, 548,725; nut, 92,525; run of mines, 190,750; slack, 61,850; mixed lump and nut, 13,835; nut and slack, 124,075; round, 5,400; miscellaneous, 97,200. Total, 1,134,360.

*Old Mines.*—Inspected March 20th. The volume of intake air was ample, but its distribution was defective. Comparatively little timbering was done on the entries, but no dangerous top was discovered. The rooms were very well timbered.

Again inspected August 11th. On this occasion the volume of intake air was short. There were 49 persons in bank, and a volume of only 3,456 cubic feet of air per minute was entering the mine, and that was in large part lost before the men were reached. Some broken cross-timbers were noted on entry 21½. From No. 21 parting on through the mine the roof was bad in numerous places, and there was a good deal of loose top, caused by a squeeze. The drainage was good.

Again inspected December 12th. Mining was confined to entries 21, 23, and 24. These entries were dry. There were 50



persons in bank, and the intake air amounted to 6,300 cubic feet per minute. This was an adequate supply, but unfortunately before reaching the first working-place the current had nearly disappeared—it had grown so weak that its velocity could not be determined by an anemometer. The ventilation, therefore, was not good. What air did reach the working-places was tolerably well conducted through them. Some loose top on entries 21 and 23 needed to be taken down.

*New and Grape Vine Drifts.*—Inspected March 20th. These drifts were ventilated by the same current, which amounted to 5,581 for 40 persons. Two doors were needed in the *New Drift* and were being built at the time of the inspection. With the doors up, it was clear that the ventilation of the mine would be good. The *Grape Vine Drift* was very well ventilated. The entries were too wet. No dangerous places from lack of timbering were discovered.

Again inspected August 11th. Both drifts were well ventilated, fairly timbered, but poorly drained.

Again inspected December 12th. Except in nine rooms the ventilation was good. The timbering and drainage were fair.

#### CENTRAL JELICO MINE.

Near Pleasant View.

P. O. Pleasant View.

Operated by the Central Jellico Coal Co., J. P. Mahan, President; J. W. Siler, Treasurer; John Phillips, Superintendent.

Output for 1894, in bushels: Lump, 278,712; nut, 396,088; run of mines, 17,525; mixed lump and nut, 5,125; pea, 178,295; round, 18,587; miscellaneous, 25,000. Total, 919,332.

Inspected March 19th. The condition of the mine had been much improved since the preceding inspection. The ventilation was good in most parts of the bank, but there were some working places which the air-current did not reach. Drainage and timbering were fairly good.

Again inspected August 10th. The conditions were practically unchanged from what they were on March 19th.

Again inspected December 10th. The ventilation was bad, the supply of air being insufficient, and its distribution defective. It should be said that efforts to remedy the deficiency of



air-supply were already in progress. Arrangements were being made to place a 10-foot ventilating fan at the mouth of No. 17 entry. The engine was on the ground, and the engine house was up. The fan, which had been shipped, had not been received. The mine was tolerably well timbered. Drainage was good, except in entries 15 and 16, and in room 13 on entry 15.

#### STRUNK MINE.

At Strunk's Lane.

P. O. Strunk.

Operated by the Pine Knot Coal Co., M. Phillips, President; L. M. Jackson, General Manager and Treasurer; John W. Frost, Secretary.

Output for 1894, in bushels: Lump, 29,081; nut, 146,562; run of mines, 500,331; slack, 17,500; miscellaneous, 4,625. Total, 698,099.

Inspected April 16th. The mine is provided with a ventilating fan of ample power, but at the date of this inspection the air-courses had been neglected to such an extent that the air failed to reach some of the working-places. Except in one room no dangerous and untimbered top was discovered. Drainage was fair.

Again inspected November 16th. The check-curtains used for directing the air-current were too light, and many of them were badly torn. There was, however, an ample and strong current sent into the mine, hence the ventilation was not very bad. The rooms were dry, and the entries were fairly well drained. There were 280 feet of long-wall work turned off the 1st Right entry. The timbering and gob-packs in this work were not sufficiently close to the face. Elsewhere the timbering was reasonably good.

#### MOUNTAIN ASH MINES.

At Mountain Ash.

P. O. Mountain Ash.

Operated by the Jellico Coal Mining Co., E. J. Davis, President; Arthur Grove, Secretary and Treasurer.

Output for 1894, in bushels: Lump, 407,400; nut, 155,550; run of mines, 113,575; slack, 49,300; mixed lump and nut, 72,525; pea, 102,475; miscellaneous, 15,000. Total, 915,825.

Inspected March 16th. Sufficient air was entering the mines, but it was not kept well up to the working-faces. The entries were rather too wet, but the rooms were dry enough. Timbering was fairly good.

Again inspected August 9th. Work was confined to Drifts 3 and 4. The entries in both Drifts were too wet, but in other respects the conditions were good.

*No. 3 Drift.*—Again inspected December 11th. The supply of air was ample, but some of the working-places were not reached by it. The mine was well drained and timbered.

*No. 4 Drift.*—Again inspected December 11th. Plenty of air was traveling on the entries, but the current was not sent through some of the rooms that were more than 60 feet deep. In some rooms there were two open break-throughs; the rear ones needed to be closed. Except on the 1st Left entry, which was too wet, the drainage was good. The bank was fairly well timbered.

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### WESTERN DISTRICT.

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Output for 1894, in bushels: Lump, 15,076,233; nut, 4,029,931; run of mines, 6,453,462; slack, 3,730,618; mixed lump and nut, 8,428,985; pea, 957,142; miscellaneous, 6,497,779. Total, 45,174,150.

Production of coke in tons, 27,715.61.

Maximum number of employes inside 4,081; outside, 975. Total, 5,056.

Average number of employes inside, 3,068; outside, 694. Total, 3,762.

### BUTLER COUNTY.

Output for 1894, in bushels: Lump, 284,163; nut, 92,220; run of mines, 52,857; slack, 70,300. Total, 499,540.

All inspections in this county were made by the Assistant Inspector.

## ABERDEEN MINE.

At Aberdeen.

P. O. Morgantown.

Operated by the Aberdeen Coal and Mining Co., I. B. Wilford, President ; J. D. Render, Secretary ; E. P. Asply, General Superintendent and Treasurer.

Output for 1894, in bushels, was as stated for the county, this mine being the only commercial one in operation.

Inspected May 16th. The mine was in satisfactory condition.

Again inspected September 21st. The mine was found to be well ventilated, well drained, and well timbered.

## WEST ABERDEEN MINE.

Near Aberdeen.

P. O. Morgantown.

This is a new mine, the opening of which was begun in the the Spring of 1894 by Mr. James F. Phillips. It was not producing last year. First shipments were made in January last.

When visited in May the main entry had been driven 60 feet. When visited again in September the main entry had been driven a total of 330 feet. No side entries had been turned, and no rooms had been opened.

The coal worked here is the same as that wrought at the Aberdeen mine, but at the date of the last visit did not show the same thickness. At the face of the main entry it measured about  $26\frac{1}{2}$  inches.

## CHRISTIAN COUNTY.

Output for 1894, in bushels : Lump, 425,394 ; nut, 64,589 ; run of mines, 315,093 ; slack, 144,836 ; miscellaneous, 21,000. Total, 970,912.

Inspections in this county were made by the Chief Inspector and by the Assistant.

## EMPIRE MINE.

Near Empire.

P. O. Empire.

Operated by the Empire Coal & Mining Co., John D. Anderson, President ; Thos. D. Fite, Vice President ; W. R. Manier, Secretary ; W. T. Rutland, Manager and Treasurer.

Output was as given for the county.

Inspected July 18th. On the north side of the shaft, where

20 persons were employed, the conditions were very good. On the south side, where 25 to 30 persons were employed, there was hardly any ventilation. The 1st East and 5th West entries were too wet. The 5th West entry was not as well timbered as was necessary.

Visited again in November, but mine was idle for the day.

Visited again December 21st. Again the mine was idle for the day, but the fan was running, a fire was built in the basket that had been hung in the new shaft, and an inspection of the south side workings was made. The workings in question are on and tributary to what is known as the South Main. Although a new shaft had been sunk, and an old one utilized in order to remedy the defects complained of in July, the ventilative conditions were not at all satisfactory. The ventilation was poor, even where it was best. The two shafts mentioned are of unequal depth, and the fire-basket had been hung in the shallower one, and not sufficient stack added to give a motive column that would more than equal the column at the deeper shaft. The ways being open so that the current could go to either shaft, the result was that the deeper shaft, which was intended to be simply for escape, worked as an air-shaft, and "pulled" against the basket. In consequence of the dilapidation of one check-curtain, and the absence of others where needed, there was practically no ventilation beyond the 2d East entry. The South Main side was in a condition to be thoroughly and easily ventilated by the proper placing of check curtains, but from failure to do that the ventilation was bad. A mistake was made in hanging the fire-basket in the shallower shaft. Much better ventilative results would be obtained, and a more convenient second outlet secured by placing the fire-basket in the deeper shaft, and the ladder-way in the shallower one.

#### DAVEISS COUNTY.

Output for 1894. in bushels: Lump, 165,917; nut, 33,299; run of mines, 19,676; slack, 39,824; steam, 100. Total, 258,816.

Inspections were made by the Chief Inspector and by the Assistant.



## NALL'S MINE.

Near Owensboro.

P. O. Owensboro.

Operated by C. L. Nall, proprietor.

Output for 1894, in bushels: Lump, 80,703; nut, 14,264; run of mines, 11,233; slack, 19,374; steam, 100 Total, 125,674.

Inspected June 5th. The mine was found to be in good condition underground. The safety-catches on the cage used for hoisting and lowering persons were worthless, and there was no safety-gate at the top of the shaft.

Again visited September 28th, but the mine was not running.

Again inspected November 22d. Plenty of air was entering the mine for the number of persons employed, but most of it was lost before the working-places, where needed, were reached. The leaks could readily be stopped.

Safety-gates were put up, and a new cage with safety-catches was hung in the shaft.

## DEANE HOME MINE.

Near Owensboro.

P. O. Owensboro.

Operated by A. R. Bruck, Lessee.

Output for 1894, in bushels: Lump, 29,750; nut, 8,310; run of mines, 500; slack, 6,050. Total, 44,610.

At this mine (a shaft), which was visited in June, September and November, the number of persons employed varies from two to six. For the number of persons underground, the ventilation is usually sufficient. Excellent safety-catches have been put on the hoisting cage.

## NEW HOLLAND MINE.

At Mattingly.

P. O. Owensboro.

Operated by New Holland Coal Co., H. G. Simmons, Proprietor.

Output for 1894, in bushels: Lump, 55,464; nut, 10,725; run of mines, 7,943; slack, 14,400. Total, 88,532.

Inspected February 10th. The mine was without artificial means for ventilation, and the air was bad. Other conditions were fairly good. Ten persons were engaged underground.



Notice had heretofore been served to provide the proper means for securing ventilation. The failure to comply with it was duly reported to the Commonwealth's Attorney. A compromise was made by which, with the understanding that the proper ventilating means would be provided, and in the meantime the underground force be reduced to less than six persons, the proposed indictment was held up.

Visited again June 6th. The mine was still being operated without artificial ventilation, but the force had been cut down to four miners and a driver.

Again inspected November 23d. A furnace had been built, but since the mine was idle the volume of ventilating current produced by it could be not determined. The arrangements for distributing the air, however, were examined. The circulation was defective, in consequence of the lack of two check-curtains and the failure to close a couple of break-throughs. The ventilation could be made excellent with little trouble and at small expense. The working-places were fairly well timbered, but in some places props were not close enough to the working-face. It was noticed that in some rooms the fore-set props were 15 to 20 feet back from the face. In explanation of this it was stated that it was done in order to let the "draw slate" come down before timbers were set up, and thus gain height and a solid roof. The plan, it hardly need be said, is dangerous.

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The Lea, Patrick, Bon Harbor and Rudy mines were visited during the year, but were not employing enough miners to make them subject to inspection. It was expected to increase the number of miners at the Rudy mine.

#### HANCOCK COUNTY.

Output for 1894, in bushels: Lump, 670,399; nut, 113,825; run of mines, 11,000; slack, 92,600; pea, 1,450. Total, 889,274.

Inspections were made by the Chief Inspector and by the Assistant.

## THE BEST MINE.

Near Petri.

P. O. Petri.

Operated by Best & Son, Proprietors, a firm composed of P. Best, Sr., and P. Best, Jr.

Output for 1894, in bushels: Lump, 12,000; nut, 4,950; run of mines, 11,000; Slack, 2,100; pea, 1,450. Total, 31,500.

Inspected July 5th.\* The mine was new. It is connected with the Louisville, St. Louis and Texas Ry., by a wooden tram-way about 800 yards long. The seam worked is the "Hinkel" coal of this region,\* which is the "Hawes Hill" coal of the Hancock county section.† It measures 30 inches in thickness. Natural means were depended upon for ventilation. Timbering was good, but drainage poor. Seven persons were employed underground.

Again inspected November 24th. A "furnace" had been put in. The mine was not running when inspected, and the volume of intake current produced could not be determined. A check-curtain was needed to direct the air on to its proper course.

## FALCON MINE.

Near Falcon Station.

P. O. Adair.

Operated by the Hawesville Coal Co., M. B. Chambers, President; John S. Adair, Superintendent; D. L. Adair, Secretary and Treasurer. Head office, Hawesville.

Output for 1894, in bushels: Lump, 658,399; nut, 108,875; slack, 90,500. Total, 857,774.

Inspected April 27th. The condition of the mine had been improved in every respect since the preceding inspection. The drainage was quite good. The timbering and ventilation were still defective.

Again inspected July 5th. The ventilation was still deficient, but otherwise the mine was in good condition.

Again inspected November 24th. It was clear that efforts had been made to improve the ventilation, but on account of leakages direct to the furnace the available volume of intake air was

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\*Report of this Office, 1893, Plate II, facing p. 98.

† Report of this Office, 1893, Plate II, facing p. 98. Also Ky. Geol. Survey, Second Series, Vol. V., Report on Hancock county.

too small, and through failure to hang some check-curtains on the Little Black (Egan) and Gilliam (or on the Hayes) entries the current was not properly distributed to the rooms. There seemed to be a notion that so long as rooms meeting each other from parallel entries holed into each other, the problem of ventilation was solved.

### HENDERSON COUNTY.

Output for 1894, in bushels: Lump, 1,075,315; nut, 288,817; run of mines, 343,141; slack, 167,174; mixed lump and nut, 6,300; pea, 52,668; pea and slack, 20,717; miscellaneous, 47,725. Total, 2,001,857.

Inspections were made by the Chief Inspector and by the Assistant.

### RANKIN MINE.

Near Spottsville.

P. O. Spottsville.

Operated by the Green River Coal and Mining Co., G. Rankin. President; N. L. Eastin General Superintendent, Secretary and Treasurer. (Mr. Eastin died January 1st, 1895, from shock following amputation of an arm that was crushed while he was shunting railroad cars. Mr. Rankin Eastin is now Superintendent.)

Output for 1894, in bushels: Lump, 139,559; nut, 34,675; run of mines, 5,000; slack, 12,300; pea, 2,896; pea and slack, 1,200; miscellaneous, 5,000. Total, 200,630.

Visited June 6th. The mine was idle. Miners had joined the general strike.

Inspected July 6th. At this time there were only six persons employed in bank. Sufficient intake air was provided, but it failed to reach some of the men. No props were set in rooms. Drainage was good. There was no brake on the hoisting drum, and no cover or safety catches on the hoisting cage.

Again inspected November 21. There were now 20 persons employed in bank. Again there was cause for complaint about the distribution of the air. Efforts were making, however, to remedy the defects.

## HENDERSON MINE.

At Henderson.

P. O. Henderson.

Operated by the Henderson Mining and Manufacturing Company, C. W. Wilson, President; A. B. Sights, Secretary and Treasurer.

Output for 1894, in bushels: Lump, 96,749; nut, 62,199; run of mines, 147,995; slack, 30,103; pea, 34,360; miscellaneous, 3,000. Total, 374,406.

Inspected June 7th. The underground conditions were good. At the surface the shaft is not closed on one side. The brake is attached to the fly wheel instead of to the drum.

Again inspected November 20th. The bank was in a satisfactory condition with a few exceptions, which were to be easily remedied. The principal cause for complaint was the failure to close a few rear break-throughs.

## PEOPLE'S MINE.

Near Henderson.

P. O. Henderson.

Operated by the H. G. Jorris Mining Company, a firm consisting of H. G. Jorris and P. J. McNamara.

Output for 1894, in bushels: Lump, 63,225; nut, 30,721; run of mines, 11,730; pea and slack, 19,517; miscellaneous, 7,225. Total, 132,488.

Inspected February 8th. The ventilation was defective. The air was not well conducted to the working-places. The timbering was fair. Drainage was good. The cage used for hoisting and lowering persons had no cover, and there was no safety-gate at the top of the shaft.

Again visited June 9th. The mine was idle and had been so most of the time since the preceding inspection.

Again inspected July 24th. Ventilation and drainage were good. There was still no safety-gate at the top of the shaft, and the cover that had been put on the cage was of little value. The hoisting drum was out of line, and a piece was broken from the rim of one of the sheaves, but not enough to render it immediately dangerous. Some timbering was required at the bottom of the shaft.

Again inspected November 20th. The supply of air was suffi-



cient for the number of persons (8) then in bank, but it was allowed to scatter too much.

It may be remarked that Mr. Jorris, desiring to work more than ten persons in this mine without providing a second outlet, insists upon the untenable position that, since the work is now reached from a different side of the shaft from that upon which the old workings lie, he has really opened a new mine, that the "People's" is now to be classed as a new mine; so far as he is concerned; and that until he has excavated 15,000 square yards on his new entries, he has the privilege of employing as many persons underground as he chooses, without making a second outlet. Of course Mr. Jorris has simply broken off some new entries in an old mine, (in which much more than 15,000 square yards had long been excavated), and should he employ more than ten persons as the mine now stands, prompt action will be taken to test his argument in court.

#### CORYDON MINE.

At Corydon.

P. O. Corydon.

Operated by B. M. Powell, under the name of Corydon Coal Company.

Output for 1894, in bushels: Lump, 62,525; nut, 11,421; slack, 6,723. Total, 80,699.

Visited June 8th. The mine was idle, had been for two days, and was not inspected.

Inspected July 9th. There were but two men in bank. Their working-places were in good condition. The rooms on the 1st and 2d entries were up more than 60 feet, but no provision had been made to send the air through them. Some new timbers were needed on the main entry.

During the year a new boiler and engine house was built, and and the hoisting arrangements were overhauled generally.

#### BASKETT MINE.

At Baskett.

P. O. Baskett.

Operated in 1894 part of the year by the Baskett Coal Co., (John Baskett, Sr., President, and R. S. Eastin, Secretary and Treasurer), and the remainder by Ben Kinsey, Assignee. It is



understood that the mine has now (February 1895), passed into other hands.

Output for 1894, in bushels ; Lump, 509,175 ; nut 87,500 ; run of mines, 49,494 ; slack, 117,687 ; mixed lump and nut, 6,300 ; miscellaneous, 32,500. Total, 802,656.

Visited June 6th. The mine was idle. Miners had joined the general strike.

Inspected July 7th. The ventilation had been very much improved since the preceding inspection, but some of the working-places were still too far ahead of the air. Drainage was good. Props were not kept as close to working-places as they should be. A new fan, of iron, ten feet in diameter, had been put up.

Again inspected November 20th. The ventilation and timbering had both been materially improved, but there was yet much to be done to get the bank into proper condition. There were many air-leaks to be closed. In consequence of the many leaks and the large amount of friction the volume of air for the north side was insufficient. A connection between certain north side and south side workings was being made that gave promise of curing this difficulty.

The improvement in the timbering was especially marked, for which credit seems to be due Mr. Hugh Maxwell, Bank Boss. Had the bank been allowed to go much longer, with no more timbering than had been done under Mr. Maxwell's predecessor, the mine would undoubtedly have closed in many places. The pillar and stall system (not to be confused with what is generally known in this State as "pillar and room") had been started at this place by James Heron to get clear of the results of a great squeeze. But it was not properly followed by Mr. Heron's successor. By the pillar and stall system, if it is properly followed, nothing but narrow work may be done until the boundary is reached ; then the robbing of pillars is begun. Mr. Heron's plan (as the writer understood him to outline it) was the true pillar and stall method, but the writer never approved its application at this mine—after the squeeze had been left—and when the true principle was abandoned the work deteriorated into what was little better than "butchering." The panel system, or modification thereof, would have been better than

the one started by Mr. Heron, since quicker returns in coal were required by the company than could properly be obtained from his method; but the best plan upon which to work this mine, and all others in the region, is the one followed by nearly all the miners in Western Kentucky, namely, the room and pillar system. It is a mistake to suppose that this mine may be safely or successfully worked on any plan and timbering be avoided.

#### SPOTTSVILLE MINE.

Near Spottsville.

P. O. Spottsville.

Operated up to August 15th by the Green River Coal Co.; then for the remainder of the year by the Spottsville Co-operative Coal Co., J. W. Powell, President; John Coxon, Vice President; R. L. Cinnamond, Secretary and Treasurer. At the close of the year the Co-operative Co. gave up the mine. It is now in the control of the Green River Coal Co.

Output for 1894, in bushels: Lump, 204,012; nut, 62,301; run of mines, 128,922; slack, 331; pea, 15,412. Total, 410,978.

Visited June 6th. The mine was idle. Miners had joined the general strike.

Inspected July 6th. The mine was being operated by the Green River Coal and Mining Co. There was a large surplus of air entering the bank, but it failed to reach the workings where needed. In three rooms on Shotgun entry, props were not set close enough to the working-faces. The Main entry was too wet.

Inspected again November 21st. The mine was being operated by the Spottsville Co-operative Coal Co. Plenty of air was still entering the mine, but it was allowed to scatter too much; and, in addition, a plan of working was being developed that tended to complicate the question of properly coursing the air, without any arrangements being made to solve the complications as they should arise. Very little timbering was being done in the new working-places, which were being carried on a mixed sort of pillar and stall system, if it could be dignified with the name "system." The company was trusting to the apparent strength of the roof, but was advised that unless props were used the heavy roof would certainly crush the pillars. Attention was

called to the fact that along what was called the "Main" entry—*i. e.*, the main haul-way—in the older part of the mine, the pillars were crushed, and that there were many pieces of overhanging rock along the sides that were threatening. Unfortunately, the plan of excavation that for some time has been followed at the Baskett mine had made a favorable impression on the underground manager for the Co-operative Co., and the work was being shaped for its adoption. (See Baskett mine.)

### HOPKINS COUNTY.

Output for 1894, in bushels: Lump, 5,628,318; nut, 1,925,498; run of mines, 1,638,666; slack, 1,146,609; mixed lump and nut, 5,193,100; pea, 256,702; miscellaneous, 4,505,082. Total, 20,303,975.

Inspections were made by the Chief Inspector and by the Assistant.

### CARBONDALE MINE.

Near Hamby Station.

P. O. Hamby Station.

Operated by the Carbondale Coal and Coke Co., E. C. Horn, President (New York); S. A. Bright, Secretary; Edward Garrett, Treasurer; Geo. B. Dovey, General Manager.

Output for 1894, in bushels: Lump, 160,211; nut, 66,375; run of mines, 183,890; slack, 106,810; mixed lump and nut, 56,496; miscellaneous, 105,097. Total, 678,879.

This mine was first visited on December 18, 1894. It was then not much more than ready for room work. The Main entry and air-course were in 700 feet, and side entries had been driven 200 feet.

Inspected June 12th. Ventilation was good. The entries and a few of the rooms were too wet.

Again inspected November 19th. The ventilation was not good in the range of rooms on the left of the Main entry. The air was cutting across break-throughs near the mouths of the rooms, instead of going to the faces. This was due to failure to close rear break-throughs, and the failure to make break-throughs between some of the rooms. A number of rooms on the 2d West entry needed break-throughs. A break-through was also needed between the 1st and 2d North entries. There.

was plenty of air entering the mine, but better distribution was needed, as indicated. Mr. Dovey has adopted the three-heading system, for which he is to be commended.

#### HECLA MINES.

Near Earlington.

P. O. Earlington.

Operated by the Hecla Coal Co., Jo. F. Foard, President; J. T. Alexander, Secretary; Wm. Wendel, Treasurer.

Output for 1894, in bushels: Lump, 327, 430; nut, 131,818; run of mines, 333,005; slack, 122,052; mixed lump and nut, 24,861; miscellaneous, 38,100. Total, 1,077,266.

*Shaft Mine.*—Visited July 17th. The mine was idle, and had been since July 3d.

Inspected November 14th. Plenty of air was entering the mine when the fan, which is operated by electricity, was running; but on account of the mine motor taking all the current when hauling a "trip" up the entry, the fan was still much of the time, and the ventilation, therefore, was generally defective on account of the intermittence of the current. The ventilating fan should receive its current direct, instead of being subject to the demands of the motor. Rooms on the Dip and 20th entries were not receiving air close enough to the face, and the heads of the 19th and 20th entries were entirely too far ahead of the course for the air. Some of the rooms on the Dip entry were not propped close enough to the face.

During the year a new tippie, supplied with shaking screens, operated by steam, was built. The machinery of the mine was overhauled and improved generally.

#### EARLINGTON NO. 11 MINE.

Near Earlington.

P. O. Earlington.

Operated by the St. Bernard Coal Co., John B. Atkinson, President.

For output, see Earlington No. 9 mine.

Inspected July 12th. With the exception that on the 6th West entry there were eight rooms too far ahead of the air—the air going to the entry instead of through the rooms—the mine was well ventilated. Drainage and timbering were good.



Inspected again November 12th. With a few exceptions the mine was in a fair condition in all respects. In a number of the rooms that have a limestone roof no props were set, the roof being deemed safe without them. It was deemed best by the writer, however, that a permanent row of props should be set in the center of such rooms—to give warning as to settling of the roof, etc.,—and that a temporary row should be set near the working-face when mining was in progress, as a measure of precaution against any crack that might develop in the roof along the face, or above the undermined coal. Instructions to that effect were accordingly given the foreman by Mr. B. W. Robinson, M. E. for the company.

#### EARLINGTON NO. 9. MINE.

At Earlington.

P. O. Earlington.

Operated by the St. Bernard Coal Co., John B. Atkinson, President.

The output of this mine is consolidated with that of No. 11 in the reports received from the company. Following was the output of the two mines for 1894, in bushels: Lump, 1,954,060; nut, 450,356; slack, 188,384; mixed lump and nut, 2,414,560; pea and slack, 867,680; "run of mines and mixed," 503,804; lump, nut, and run of mines, 247,684; nut and slack, 900. Total, 6,627,428.

Visited July 14th. The ventilation of the mine was somewhat out of shape in consequence of changes rendered necessary by the putting in of an endless wire-rope haulage system and preparations, including some changes in the air-ways, for adding another fan to the ventilating equipment.

Again visited November 12th. The following memorandum, filed with the company, is self explanatory: "In view of the fact that I have been informed by Mr. B. W. Robinson that (for various valid reasons, not attributable to negligence) the ventilation of Earlington No. 9 mine is not in satisfactory condition, I have not deemed it necessary to inspect the mine—simply to verify that fact. My understanding is that the new fan will be in operation within at least two weeks, when the ventilation will be brought into good condition." Arrangements were



completed for putting up the fan, but on account of delays at the factory it had not been received. The memorandum was filed November 14th. On November 30th the fan was up and running.

#### DIAMOND MINE.

Near Morton's Gap. P. O. Morton's Gap and Earlington.

Operated by the St. Bernard Coal Co., John B. Atkinson, President. P. O. address, Earlington.

Output for 1894, in bushels: Lump, 539,224; nut, 276,296; slack, 42,451; mixed lump and nut, 1,280,613; "run of mines and mixed," 119,734; lump, nut, and run of mines, 169,433; nut and slack, 358,811; pea and slack, 331,466. Total, 3,118,028.

Inspected July 14th. It was well ventilated, well drained, and well timbered.

Again inspected November 13th. With one or two small exceptions, it was in fairly good condition.

#### ST. CHARLES MINES.

Near St. Charles. P. O. St. Charles and Earlington.

Operated by the St. Bernard Coal Co., John B. Atkinson, President. P. O. address, Earlington.

Output for 1894, in bushels: Lump, 1,065,692; nut, 401,725; slack, 43,275; mixed lump and nut, 476,071; "run of mines and mixed," 130,334; lump, nut, and run of mines, 40,726; pea and slack, 301,050; nut and slack, 300,405. Total, 2,759,278.

Inspected July 13th. The ventilation on the 4th, 5th and 6th West entries was short, the volume of current for 60 persons being only about 5,000 cubic feet per minute. The entries were too wet.

Again inspected November 14th and 16th. There are two banks here, worked and ventilated independent of each other.

The "*New Bank*" was in satisfactory condition in all respects. This is the most important of the two mines.

The "*Old Bank*" was not receiving sufficient air for the number of persons underground. A new shaft had been sunk, to be used as a second intake, for the purpose of increasing the volume, but the tendency of the shaft seemed to be against the furnace. The roofs of the entries needed attention in a number of places.

## ROBERTSON'S MINE.

Near Earlington.

P. O. Earlington.

Operated by J. L. M. Robertson &amp; Son.

Output for 1894, in bushels; Lump, 35,487; nut, 9,987; run of mines, 15,744; slack, 2,000; mixed lump and nut, 3,600; miscellaneous, 1,250. Total, 68,068.

Visited July 16th. The mine was idle, and was said to have been closed since July 1st.

Again visited November 14th. Again the mine was idle.

## OAK HILL MINE.

Near Nortonville.

P. O. Nortonville.

Operated by the Woodstock Coal Co., James H. Brown, President; S. Platt, Secretary and Treasurer. Directors: P. May, A. Bennewitz, Joe Lavanne.

Output for 1894, in bushels: Lump, 56,405; nut, 11,900; run of mines, 94,533; slack, 27,958; mixed lump and nut, 1,500. Total, 192,296.

Visited June 13th. At this time the mine was in the control of the Oak Hill Coal and Manufacturing Co., L. Stull, Secretary. But little was doing at the mine. Only four miners were employed. The mine was in poor condition.

Inspected July 17th. The mine had passed into the hands of the Woodstock Coal Co., which was organized on July 2d. Comparatively little had been done by the new company, and the mine was in the defective condition in which it was left by its former owners.

Inspected November 10th. With some exceptions the mine was in a fair condition. Plenty of air was entering the bank, but it did not satisfactorily reach some of the working-places. The current was not traveling close enough to the head of the Main entry, in consequence of a rear break-through being left open. As indicated above, the company had had possession of the mine but a short time, and there was very much to do to get it in good condition. Good progress in that direction had been made.

During the year the company timbered the mouth of the bank,

put in a furnace, and improved the tippie. Much work was also done on the grade from the bank to the tippie, and a new opening was started.

#### MONARCH (No. 11) MINE.

Near Madisonville.

P. O. Madisonville.

Operated by the Monarch Coal Co., Chesley Williams, President; R. S. Dulin, Superintendent; C. E. Morton, Secretary and Treasurer.

This mine was formerly called the Madisonville Mine, and the company was known as the Madisonville Coal Co.

Output for 1894, in bushels: Lump, 223,274; nut, 97,050; run of mines, 290,704; slack, 143,801; pea, 1,750; nut and slack, 22,962; miscellaneous, 29,125. Total, 779,541.

Visited July 10th. The mine was idle. Work had been suspended July 2d, and the sinking of a shaft to No. 9 coal was in progress.

Inspected November 8th. The mine was in fair condition, with a few exceptions, easily remediable. On the 1st and 2d East entries, in some of the rooms, the air was not traveling close enough to the faces in consequence of rear break-throughs being open. On the 3d East entry sufficient air was not passing through three of the rooms; another break-through was needed. On the 4th East entry very little air was passing through two of the rooms.

Repeated warnings have been given to have an abundant supply of air sent through all the excavations of this mine, and kept close to the faces on account of fire-damp. It is believed that it would now be well to ventilate the mine by districts—by distinct currents. The sinking of the hoisting shaft and air-shaft to the No. 9 seam had been completed when this inspection was made, but no further work toward opening out that coal had been done.

During the year, among other improvements, a new tippie, provided with shaking screen, was built.

#### REINECKE (No. 11) MINE.

Near Madisonville.

P. O. Madisonville.

Operated by the Reinecke Coal Company, C. Reinecke, President; Louis Feger, Superintendent; I. Bailey, Secretary and General Manager.

Output for 1894, in bushels: Lump, 808,821; nut, 311,148; slack, 209,023; mixed lump and nut, 388,506; pea, 254,952; lump, nut and pea, 725,321; miscellaneous, 187,500. Total, 2,885,271.

Inspected July 10th. The mine was in satisfactory condition.

Inspected November 10th. The mine was in a satisfactory condition, with a few exceptions. On the East Side the workings were in very satisfactory condition. On the West Side the air was not properly traveling through some of the rooms.

The mine was ventilated by five splits of air, each one of which was ample in volume, three from the old fan, which was sending in 28,538 cubic feet of air, and two from the new fan, which was sending in about the same amount.

The long-wall experiment, the success of which was noted in the 1893 Report as "still a question" has been abandoned. The roof would not break easily—too strong—and required too much propping and cribbing.

#### CO-OPERATIVE MINE.

Near Barnsley.

P. O. Barnsley.

Operated by the Co-operative Mining and Manufacturing Co., Wm. Walton, President; J. W. Dunning, Secretary; W. T. Green, Superintendent. Board of Directors: Jno. Baker, Wm. Banks, Thos. Davis, J. H. Nolan, and E. V. Giannini.

Output for 1894, in bushels: Lump, 203,641; nut, 75,549; run of mines, 395,024; slack, 114,550; mixed lump and nut, 251,938; nut, pea and slack, 5,200; nut and slack, 4,775. Total 1,050,677.

Inspected July 16th. The ventilation was insufficient. Other conditions were good. An air-shaft was being made at the head of the straight entry, for a new furnace.

On August 11th the furnace was in operation.

Inspected again November 13th. The ventilation was fairly good. The roof needed attention in several places.

#### CRABTREE MINE.

Near Ilsley Station.

P. O. Ilsley.

Operated by the Crabtree Coal Mining Co., A. Howell, President (Clarksville, Tenn.); R. M. Salmon, Secretary and Treasurer (Ilsley).



Output for 1894, in bushels: Lump, 254,073; nut, 93,294; run of mines, 325,766; slack, 146,305; mixed lump and nut, 294,955; miscellaneous (local and heat), 13,725. Total, 1,128,118.

Inspected June 21st. The ventilation was very good. Except in the Smith entry and in one room on the Cook entry, the drainage was good. Props were not kept close enough to the working-faces. A new furnace had been built. With a good fire it was producing a current of 18,741 cubic feet per minute.

Inspected November 15th. The following memorandum, filed with the company, is self-explanatory:

“At the time of my examination of your mine, the Crabtree, on the 15th instant, the ventilation was very much out of order. I recognize the fact that this was largely due to the changes—involving change of haul-ways and of the intake for air—now in progress in the mine; but I believe it could be better even under present circumstances. I trust that the ventilation will be brought up to the legal requirements at the earliest practicable moment—without reference to the 60 days of time allowed by law in which it may be done.”

At the time of the inspection it was expected that the complete change of haulage could be completed by January, 1895, and the bank boss thought the necessary changes in the ventilation system could be effected by November 25th. The change of haulage was effected by making a new opening and building an outside tram-road 4,526 feet long. This cuts off the old works, and brings the entrance of the mine nearer to the face of the solid coal. A new tippie was built.

#### McLEAN COUNTY.

Output for 1894, in bushels: Lump, 114,134; nut, 37,769; run of mines, 130,926; slack, 37,095; mixed lump and nut, 43,749; nut and slack, 4,809; miscellaneous, 15,375. Total, 383,857.

All inspections were made by the Assistant Inspector.

#### ISLAND MINE.

Near Island.

P. O. Island.

Operated by the Island Coal Co., a firm composed of J. P. McKenney and M. Stanley.



Output for 1894, in bushels: Lump, 95,134; nut, 27,769; run of mines, 116,926; slack, 28,095; mixed lump and nut, 43,749; nut and slack, 4,809; miscellaneous (local and heat), 15,375. Total, 331,857.

Inspected May 8th. The mine, a shaft, was new. The surface works were completed and in good order for handling coal. The ventilation of the mine was not sufficient. The entries were wet in places, and the rooms were not very well timbered. There were two hoisting cages. Neither one had a cover, and on one of them there were no safety-catches.

Again inspected September 19th. The dependence for ventilation was on exhaust steam from a pump set at the bottom of the air shaft. The volume of air passing into the mine was insufficient and it was not properly distributed. The propping of rooms was defective. Some insecurely timbered bad top was noted. The mine was very wet, but the pumps were going, and the water was under control.

Again inspected December 1st. There were no safety-gates at the top of the shaft. One of the cages was without a cover, but it was stated by Mr. Stanley that the men were not allowed to use that cage. Enough air was now entering the mine, but some of the working-places had been driven too far ahead of the ventilating current. The rooms were well propped.

#### BATSEL MINE.

On Green River, Near Island. P. O. Livermore and Island.

Operated by W. E. Batsel. P. O. address, Livermore. This is a new mine, which was visited December 1st, and was just being opened. Only two persons were then employed, driving the main entry, which was in about 35 feet.

The mine is about 500 yards below the old Robinson No. 1 (formerly worked by McKenney & Stanley), which has been abandoned. (See "New and Other Mines.")

#### ROBINSON No. 2 MINE.

This mine, formerly worked by McKenney & Stanley, near Island, was visited December 1st. No work was in progress.

## KARNES MINE.

Near Island.

P. O. Island.

Worked for part of the year by the Hackett Coal Co., (E. M. Hackett), under lease from the proprietor, Alva Karnes. Mr. Hackett suspended operations in September, and control of the mine was resumed by Mr. Karnes on January 1st, 1895. As yet it is small. The first shipment was made March 1st. The coal is reached by a slope, about 50 feet long, having a fall of 8 or 9 feet.

Output for 1894, in bushels: Lump, 19,000; nut, 10,000; run of mines, 14,000; slack, 9,000. Total, 52,000.

Inspected May 8th. Eleven persons were employed at the mine, six of them being underground. The Main entry was in only 270 feet, and there were four rooms turned. The bank was not ventilated, and the drainage was bad.

Visited September 19th. There were but four persons employed in the mine, and Mr. Hackett stated that the mine would not be subject to inspection during the term of his lease.

## MUHLENBERG COUNTY.

Output for 1894, in bushels: Lump, 1,342,634; nut, 298,722; run of mines, 1,718,901; slack, 768,420; mixed lump and nut, 2,089,956; pea, 135,874; miscellaneous, 381,989. Total, 6,739,496.

Inspections were made by the Chief Inspector and by the Assistant.

## CENTRAL MINE.

At Central City.

P. O. Central City.

Operated by the Central Coal and Iron Co., Bannen Coleman, President; T. C. duPont, Vice President; Spalding Coleman, Secretary; Hywel Davies, Manager.

Output for 1894, in bushels: Lump, 290,186; nut, 50,462; run of mines, 574,650; slack, 390,534; mixed lump and nut, 1,113,774; steam, 28,187; "house," 1,175; miscellaneous (local and heat), 30,000. Total, 2,478,968.

Inspected May 11th. The condition of the mine had been very much improved since the preceding inspection. There

was now enough air entering to afford good ventilation, and with a few break-throughs made and rear ones closed the air would reach all the working-places. The drainage was good. More timbering was needed on the 8th South entry.

Again inspected September 14th. The ventilation was very poor, there being but 7,411 cubic feet of air supplied per minute for 111 persons underground, and that was not well conducted through the working-places. The shaft-cages were without covers.

Again inspected December 17th. The condition of the mine had been greatly improved, but the ventilation was still defective, due to large leakages from the current to the furnace. An ample volume of air was entering the bank, but it was not properly supplying the working-places. An elaborate notice was served.

#### DOVEY'S KENTUCKY MINE.

Near Mercer Station.

P. O. Mercer Station.

W. H. Dovey, Proprietor.

Output for 1894, in bushels: Lump, 4,816; nut, 1,150; run of mines, 6,775; slack, 4,000; mixed lump and nut, 12,000. Total, 28,741.

The closing of this mine by a fall on January 15th, 1894, was noticed in the Report for 1893. A new shaft, 129½ feet deep to the coal was sunk about 1,700 feet east of the old one, a way driven towards what is supposed to be the Main entry, and the accumulation of water tapped with a drill-hole. Efforts have been made to pump the mine dry enough to resume work, but through a series of trying, if not discouraging, mishaps, they had not proved successful up to the close of the year. Mr. Dovey has exhibited admirable patience and courage in his efforts to recover the mine, and the writer wishes him better fortune.

#### MEMPHIS MINE.

At Bevier.

P. O. Bevier.

Operated by the Memphis Coal and Mining Co., H. M. Neely, President; W. H. Moore, Secretary; J. W. Moores, Superintendent.

Output for 1894, in bushels: Lump, 128,539; nut, 38,090;

run of mines, 272,079 ; slack, 134,221 ; mixed lump and nut, 537,795 ; miscellaneous (local and heat), 24,000. Total, 1,134,724.

Inspected May 9th. Save in a few rooms, the ventilation was good. Some loose top was noted on the 2d East entry. Props were not kept up to the faces of the working-places. Drainage was good.

Again inspected September 15th. A squeeze, extending from the 2d to the 4th Right and Left entries, was causing trouble from falling slate, but precautions against accidents to the men from that source were being taken. In some rooms props were not set close enough to the faces. Otherwise the mine was in reasonably good condition.

Again inspected December 19th. The mine was in fair condition as to ventilation except in the upper part of the 4th East entry, and on the upper Cross Cut between the 4th and 5th East, and on the upper part of the 5th East entry. On account of the heat and hydrogen sulphide generated by the bottom of this mine, an extra large volume of air should be sent through the older working-places in order to render the atmosphere wholesome. The fan was supplying an ample volume of air for all purposes. There was considerable water in parts of the mine—none, however, that interfered with the diggers—but energetic and well directed efforts were in progress to drain it from the bank.

A new shaft was sunk during the year, principally to drain the wet portions of the air-course. It will also be used for ventilating purposes.

#### MUD RIVER MINE.

At Mud River.

P. O. Mud River.

Operated by the Mud River Coal, Coke and Iron Co., Jno. C. Gordon, Vice-President and Acting President ; W. G. S. Anderson, Secretary and Treasurer.

Output for 1894, in bushels : Lump, 298,895 ; nut, 64,100 ; run of mines, 79,057 ; slack, 19,000 ; pea, 66,650 ; miscellaneous (local and heat), 100,000. Total, 627,702.

Inspected May 7th. The mine was idle and no fire in either furnace, hence no measurements of ventilating current could



be made. The furnaces are known to supply an abundance of air, and the arrangements for conducting it to the working-places were found to be good. The bank was well timbered and well drained.

Again visited September 12th. The mine was idle, and the Superintendent and Bank Boss were both away. No inspection was made.

Again inspected September 22d. The working-places that were going were dry, well propped, and well ventilated.

Again inspected December 18th. An ample amount of air was supplied the mine, and so far as examined in detail—which included the workings on the left of the Slope entry—it was fairly well distributed. The Williams and No. 2 Davis (Left Side) entries needed better drainage.

#### PIERCE MINE.

At Drakesboro.

P. O. Drakesboro.

Operated by the Black Diamond Coal Co., James T. Pierce, President; H. W. Buttorff, Vice-President; Robt. T. Hopkins, Secretary.

Output for 1894, in bushels: Lump, 167,723; nut, 50,099; run of mines, 430,658; mixed lump and nut, 9,624; pea, 69,224; steam, 20,037; miscellaneous (local and heat), 43,500. Total, 790,865.

Inspected May 9th. The mine had ample ventilation, and it was kept up to the working-places very well. Drainage was good. Props were not set as close to the room-faces as they should be.

Was visited twice in September (15th and 22d). Was idle each time. No inspection made.

Visited twice in November. Was idle on one occasion. Was inspected November 30th. Props were too far back from the faces throughout the mine. Otherwise, the mine was in good condition. If there is method in the failure to set props closer to the faces, economy being the object, then the "method" is likely to prove costly in the end.

Again visited December 19th. The mine was idle. Workmen were busy putting in electric mining machinery. The electric plant, installed by the General Electric Co., consists of



the following: One 160 H-P. engine; one 135 H-P. dynamo; two mining machines; one motor; one pump; one emery grinder. At the time of this visit it was too soon to judge the probable outcome of the experiment with the mining machine used. Writing at the close of the year, the President says: "We are unable to give you any estimate as to the success of the plant ultimately, as the entire plant is entirely new to us all. Later on we can give you facts in the case." So far as tested at the time of the visit on December 19th, the machine seemed, from common report, to have acted nicely, the sulphur—that *bete noir* to the coal cutter in No. 9 coal—having given little trouble. The writer did not see the machine at work, and does not care to give impressions gained from seeing it idle—they could be of little value.

#### PARADISE MINE.

Near Paradise.

P. O. Paradise.

Operated by J. Wm. Jones, Lessee.

Output for 1894 in bushels: Total, all run of mines, 98,833.

Only a small number of persons are employed here. When the mine was inspected in May there were only six in bank. With the exception of one room, in which the top was bad, and not well timbered, the working portion of the mine was in good condition. The bank was well ventilated and well drained where needed.

#### HILLSIDE MINE.

At Hillside.

P. O. Mercer Station.

Operated by the Hillside Coal Co.; J. W. Lam and T. D. Fortney.

Output for 1894, in bushels: Lump, 229,986; nut, 62,610; run of mines, 159,899; slack, 124,450; mixed lump and nut, 191,990; miscellaneous (local and heat), 114,440. Total, 883,377.

Inspected May 10th. In a few rooms props were not set close enough to the faces. With that exception, the underground conditions were good. The cages had no covers, and one of them had no safety-catches. There was no safety-gate at the top of the shaft.

Again inspected September 13th. The underground condi-

tions were good. There were no safety-gates at the top of the shaft, and no covers on the shaft cages.

Again inspected December 20th. Plenty of air was entering the mine, and it was fairly well distributed. No safety-gates had been put up and there were no covers on the cages. The liability of the company to indictment on account of failure to comply with directions to put up the gates, etc.; was noted. The covers were subsequently put on and the gates hung, and the matter was not taken into court.

#### POWDERLY MINE.

At Powderly.

P. O. Powderly.

Operated by the Greenville Coal Company, Louis Reno, President; E. D. Martin, Vice-President; I. J. Kahn, General Manager; C. H. Hamilton, Superintendent.

Output for 1894, in bushels: Lump, 205,814; nut, 31,411; run of mines, 95,450; slack, 96,215; mixed lump and nut, 223,298; steam, 14,875; miscellaneous (local and heat), 8,750. Total, 675,813.

Inspected May 10th. The bank was well ventilated and well drained. With the exception of some bad top on the Main entry, between 2d and 3d North entries, the mine was well timbered. There were neither safety-catches nor covers on the hoisting cages, and there was no brake on the winding drum.

Again inspected September 20th. The mine was in good condition—well ventilated, drained and timbered.

Again inspected December 20th. The ventilation was fairly good. In some of the rooms, however, the air was not traveling close enough to the faces. It was noted that the company was liable to indictment for failure to comply with directions to put safety-catches on the hoisting cage. The catches were subsequently put on, however, and the matter was not carried into court.

#### SILVER CREEK (No. 11) MINE.

Near Central City.

P. O. Central City.

Operated by the Silver Creek Coal Company, M. J. Bulger, General Manager; Romain Saude, Secretary; John Tennent, Treasurer; John Lanyon and Victor Raux.

Output for 1894, in bushels: Lump, 16,675; nut, 800; run of mines, 1,500; mixed lump and nut, 1,475; local, &c., 25. Total, 20,450.

The mine was visited in May, October and November. It was not until about the middle of the latter month sufficiently developed and equipped for shipments. The mine is small, consisting of a short slope with a few rooms. It was again visited December 18th. Shipments were now being made. Directions to ventilate the mine by artificial means were given.

### OHIO COUNTY.

Output for 1894, in bushels: Lump, 3,637,338; nut, 717,053; run of mines, 1,238,100; slack, 1,009,852; mixed lump and nut, 565,498; pea, 275,770; miscellaneous, 1,279,816. Total, 8,723,427.

With the exception of mines at Deane'sfield, all inspections were made by the Assistant Inspector.

### McHENRY MINE.

At McHenry.

P. O. McHenry,

Operated by the McHenry Coal Co., W. G. Duncan, President; H. McHenry Eskridge, Secretary; C. W. Taylor, Superintendent. Head office, 427 W. Jefferson St., Louisville, Ky.

Output for 1894, in bushels: Lump, 552,336; nut, 145,904; run of mines, 782,605; slack, 144,291; mixed lump and nut, 152,524; pea, 80,645; egg and nut, 97,761; egg, 46,999. Total, 2,003,065.

Inspected July 20th.\* Except on the 7th North entry and air-course, where it was very defective, the ventilation was good. The 9th North entry was too wet. No lack of timbering was observed.

Again inspected November 2d. There was a good volume of intake air, but its distribution was defective. The stoppings on the 7th North entry were in such bad condition that very little air reached the working-places toward the head of the entry. Stop-

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\*Mr. Grider was at McHenry, for the purpose of inspecting the mines in the region, in May, but the strike occurred the day after he reached there and inspections had to be deferred.

pings were needed on the 8th North entry, in order to cause the current to pass through ten rooms that were more than 60 feet deep. The air had not been turned into six rooms on the Main air-course, that were up more than 60 feet. Other parts of the bank were well ventilated. On the Main entry two of the cross-timbers which were under a heavy load of broken top were broken; elsewhere timbering was good. Drainage was good.

#### ECHOLS MINE.

At Echols.

P. O. Echols.

Operated by the McHenry Coal Co. (See McHenry mine.)

Output for 1894, in bushels: Lump, 388,761; nut, 92,676; run of mines, 140,094; slack, 191,727; mixed lump and nut, 74,163; egg, 160,626; mixed and egg, 95,427; egg and nut, 39,500. Total, 1,182,974.

Inspected July 21st. There was not sufficient ventilating current. The principle cause of the deficiency seemed to be due to the ladders and landings in the fan-shaft. The error of having that shaft so nearly closed with landings, etc., has been indicated heretofore. Better drainage was needed on the 3d North entry.

Again inspected November 3d. There was now enough air entering the mine, but its distribution was defective. A curtain used to regulate the intake at the man-way was much too light. A brattice across the Main entry leaked, causing a heavy loss of air. The current was not sent through six rooms on the 2d East entry that were much deeper than 60 feet. Drainage was good. No lack of timbering was noticed on entries or in rooms.

#### TAYLOR MINE.

Near Beaver Dam.

P. O. Taylor Mines.

Operated by the Taylor Coal Company of Ky., J. B. Speed, President; I. P. Barnard, Superintendent; W. A. Jones, Secretary and Treasurer.

Output for 1894, in bushels: Lump, 1,328,910; nut, 335,250; run of mines, 208,584; slack, 150,250; mixed lump and nut, 109,375; pea, 195,125; miscellaneous (local and heat), 72,500. Total, 2,399,994.



Inspected July 21st. The bank was in good condition in all respects.

Again inspected November 1st. There were eight rooms on the 2d Right entry and several on the 2d Left through which the ventilating current had not been sent, though they were up more than 60 feet. Elsewhere the ventilation was good. The mine was well drained and well timbered.

The coal is now mined exclusively by machine, the Ingersoll-Sergeant machine being used.

#### RENDER MINES.

At Hamilton Station.

P. O. Render.

Operated by the Central Coal and Iron Co., Bannon Coleman, President; T. C. duPont, Vice-President; S. Coleman, Secretary; Hywel Davies, Manager.

Output for 1894, in bushels: Lump, 715,206; nut, 27,365; run of mines, 35,828; slack, 292,125; mixed lump and nut, 99,079; nut and slack, 102,375; steam, 572,525; miscellaneous (local and heat), 10,000. Total, 1,854,503.

Inspected July 19th. An air-shaft had been sunk near the head of the 10th North entry which had much improved the ventilation. Except for one or two small defects in the manner of conducting the air, the ventilation of the mine would be quite satisfactory. Better drainage was needed on the Main entry, between the 10th and 11th North entries. The mine was well timbered.

Again inspected November 1st. With the exception of several rooms on the 9th South entry, (up more than 60 feet, but through which the air-current was not sent), the ventilation was good. Some unsupported loose top was noted in the 10th North entry and in room 10 of the 10th South entry. Drainage was good.

*Render No. 2.*—Inspected November 1st. There were but 12 persons engaged in this new opening. The bank was in excellent condition.

#### THE GAINES MINE.

Near Fordsville.

P. O. Fordsville.

Operated by the Gaines Coal Co., W. O. Read, Secretary.

Output for 1894, in bushels: Lump, 31,300; nut, 6,025; slack, 3,325. Total, 40,650.



This mine has been worked in rather a haphazard way, being principally on stumps and pillars. It was visited in April and September. Upon the last visit it was expected to wind up work about the close of the year, and word was subsequently received that the mine would be exhausted about February 1st, 1895, and work ended.

#### AETNA COLLIERY.

At Deane-field.

P. O. Aetnaville.

Operated by D. Stewart Miller, Owner and Manager.

Output for 1894, in bushels: Lump, 330,452; nut, 61,050; run of mines, 4,420; slack, 98,634. Total, 494,556.

Mr. Miller has made quite a handsome little mine out of what was formerly known as the "Deane-field." The surface works are new and well arranged.

Inspected April 30th. Work was confined to the 3d East and 3d West entries. Ventilation and drainage were fair, but rooms were not propped close enough to the face. There was no brake on the winding-drum. One of the hoisting cages was without a cover.

Again inspected November 22d. The bank was in a satisfactory condition. A band-brake had been procured for the winding-drum, but had not been put on. The cages are operated by double engines, so the engineer saw no especial need for a brake on the drum. It was advised, however, that the band-brake be put on, and this, it is understood, has been done.

#### WORRALL MTN. MINE.

At Reynolds Station.

Owned by the Worrall Mtn. Coal and Manufacturing Company, Hon. R. S. Triplett, Manager, Owensboro, Ky.

Output for 1894, in bushels: Lump, 21,000; nut, 3,500; run of mines, 3,000; slack, 3,000; mixed lump and nut, 1,500; nut and slack, 2,000. Total, 34,000.

This mine was operated but a small portion of the year. Work was chiefly driving entries for the purpose of prospecting. When visited in April there were but four miners employed.

## WILLIAMS MINE.

Near McHenry.

P. O. McHenry.

Operated by the Williams Coal Company, E. T. Williams, President ; J. S. Williams, Secretary and Treasurer.

Output for 1894, in bushels : Lump, 269,373 ; nut, 45,283 ; run of mines, 63,569 ; slack, 126,500 ; mixed lump and nut, 128,857 ; steam, 65,353 ; steam and pea, 10,125 ; steam, pea and mixed, 2,250 ; steam, slack and nut, 1,750 ; slack and nut, 625. Total, 713,685.

Inspected May 14th. Enough air was entering the bank. A few new break-throughs were needed, with rear ones closed, in order for the current to reach some of the working-places. More timbering was required on the 8th South Entry. Drainage was good. (The mine was closed by the general strike the day after this inspection.)

Again inspected July 20th. The mine was idle and there was no fire in the furnace ; hence no measurements of the ventilating current could be taken. The bank was well drained and timbered.

Again inspected October 31st. The air supply was sufficient but it was not well conducted through the mine, hence the ventilation of some of the working-places was bad. Except in two rooms (4th and 5th) on the 2d Left entry, timbering was satisfactory. Drainage was good.

## THOMPSON MINE.

At Deaneffield.

P. O. Aetnaville.

This is quite a new mine, opened in the Deaneffield coal by the Thompson Coal Co., Geo. C. Roberts, Superintendent. (See "New and Other Mines.")

In September the opening, a slope, was not much more than fairly well started.

By November 23d, considerable progress had been made in driving the slope, and the surface works were nearing completion. Air was being carried along the slope by cloth brattice. The brattice needed to be extended about 60 feet farther towards the head.

## UNION COUNTY.

Output for 1894, in bushels ; Lump, 1,508,635 ; nut, 375,486 ; run of mines, 539,074 ; slack, 182,096 ; mixed lump and nut, 411,700 ; pea, 146,608 ; miscellaneous, 201,041. Total, 3,364,640.

Inspections were made by the Chief Inspector and by the Assistant.

## THE CONN MINE.

Near Sturgis.

P. O. Sturgis.

Operated by Cross & Veazy, Lessees ; J. M. Cross, Manager.

Output for 1894, in bushels : Lump, 12,489 ; nut, 6,053 ; run of mines, 600 ; slack, 2,000 ; mixed lump and nut, 19,633 ; local and heat, 1,000. Total, 41,775.

Until 1894, this mine, a slope, was worked in a desultory way for local purposes only. Since Messrs. Cross and Veazy have taken control, they have converted it into a shipping mine.

The first inspection was made November 18th. There was no fire in the ventilating shaft, but there was reason to believe that with a fire in the shaft there would be a current quite sufficient for the needs of the number of persons employed. The arrangements for distribution, however, were somewhat defective. It was clear, however, that the Manager desired to have the condition of the mine up to legal requirements. The coal worked here is the Four-foot (No. 5) Seam of Dr. Owens' Union County Section—which is also worked at DeKoven

## DEKOVEN FOUR-FOOT AND THREE-FOOT MINES.

At DeKoven.

P. O. DeKoven.

Operated by the Ohio Valley Coal & Mining Co., S. S. Brown, President ; S. P. Sturgis, Secretary.

The company reports the output of these mines and of the No. 9 Slope together. Output of the three mines for 1894, in bushels : Lump, 551,247 ; nut, 123,781 ; run of mines, 292,077 ; slack, 18,125 ; mixed lump and nut, 361,704 ; pea, 70,721, pea and slack, 87,500. Total, 1,505,155.

*Four-foot Mine.*—Inspected June 9th. The ventilation was defective. The air was not carried through the rooms. Timbering and drainage were good.

Again inspected November 19th. Ventilation was bad in the rooms on the 5th Right and 5th Left entries, simply because two inexpensive curtains had not been hung. It was also noted that the furnace fire was not kept going steadily. Peremptory directions were given to ventilate the mine properly.

*Three-foot Mine.*—This was not in operation at the time of either visit to DeKoven.

*No. 9 Slope* —Inspected June 9th. The ventilation was defective. The current was not systematically carried through the rooms.

Again inspected November 19th. The supply of intake air was sufficient, but it was not traveling through all the working-places. The following notice was served: "The amount of air supplied is adequate, but it must be sent into and through all working-places, and kept within 60 feet or less of all working-faces—in rooms as well as in entries. The coal you are working is a gassy coal when well under cover, liable to evolve fire-damp at any time, and it is, therefore, especially necessary as a matter of safety that an ample amount of air shall be supplied and kept well to the faces of all working-places. The head of the 1st Right entry is 167 feet beyond the air—107 feet too far. The head of the parallel air-course is 122 feet beyond the air—62 feet too far.

"According to my calculations, there have been more than 15,000 square yards excavated in the mine, and a second outlet is, therefore, needed."

#### STURGIS MINE.

At Sturgis.

P. O. Sturgis.

Operated by the Ohio Valley Banking and Trust Co., Receiver of the Sturgis Coal and Coke Co.

Output for 1894, in bushels: Lump, 277,898; nut, 31,805; run of mines, 126,467; slack, 31,521; mixed lump and nut, 30,363; pea, 4,812; pea and slack, 25,541; miscellaneous (local and heat), 72,000. Total, 600,407.

Inspected February 9th. At this time the mine was in the hands of Col. Jordan Giles, Lessee. The mine was idle. The special object of the visit was to ascertain whether the Lessee



had complied with the notice served on him to make a second outlet to the mine. He had not. The matter was promptly referred to the Commonwealth's Attorney, as had also been the failure of the Sturgis Coal and Coke Co. to comply with notices served on it.\*

In March the property went into the hands of the Ohio Valley Banking and Trust Co., as Receiver, and up to last accounts it was still in the hands of the court. The Receiver, with a view, as the writer understands, to disposing of the property, has worked the mine—by arrangement with various parties—in a small way, in a somewhat desultory fashion, up to date.

Again inspected June 11th. The second outlet had not been completed, but some work had been done towards making it. The attention of the Receiver was called to the matter, and information was also filed with the Commonwealth's Attorney.

Again inspected November 19th. Practically the only work going on in the mine—as had for some time been the case—was the driving of the Tate entry to meet the Tate slope for the purpose of obtaining the second outlet. It may be remarked here that the working of more than ten persons in the mine at one time had been prohibited, and that, so far as could be learned, the prohibition had been observed. It was perfectly legal, as the mining law stands, to employ ten persons at a time, and thirty miners might have been employed by dividing the number into three shifts of eight hours each. Various fabrications have been circulated about the working of the mine, “in violation of the law ;” but it is not deemed necessary to give them particular attention. The record of the Inspector's office, as is shown by official documents on file and correspondence with the Commonwealth's Attorney, is very clear with respect to this mine.

At the time of this inspection a comprehensive statement of the things to be done to put the bank in proper condition and avoid accidents from fire-damp was filed for the guidance of the representatives of the Receiver. A copy was also forwarded to the Receiver. Information with respect to this inspection was also forwarded to the Commonwealth's Attorney.

*The Tate Slope.*—Although it was questioned whether it was

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\* See Report for 1893, page 198.



subject to State supervision since less than six persons were employed in it, an inspection was made of the Tate Slope—part of the Sturgis Coal and Coke Company's property—on November 17th. The only work being done consisted of driving the the slope, with accompanying air-course, to meet the Tate entry coming from the Sturgis shaft. There was a volume of 3,000 feet of air traveling within 12 feet of the face of the slope, and within about the same distance of the face of the air-course. In several places the roof of the slope was in bad condition, and (while it was admitted that perhaps the mine was not subject to supervision) a memorandum concerning them was duly filed at Sturgis, and a copy sent to the Receiver.

#### CUMBERLAND MINE.

Near Sturgis.

P. O. Sturgis.

Operated by the Cumberland Coal Co., Isaac Reese, Secretary and Treasurer; Geo. H. McCartney, Superintendent. (No President named in report of company.)

Output for 1894, in bushels: Lump, 569,150; nut, 188,075; run of mines, 119,930; slack, 130,450; pea, 71,075; miscellaneous (local and heat), 15,000. Total, 1,093,680.

Inspected February 9th. Ventilation was not satisfactory, the air not being sent through many of the rooms. The mine was well drained and tolerably well timbered.

Again inspected June 11th. Plenty of air was entering the mine, but it did not reach some of the working-places. A second outlet had been made for the mine, the one formerly depended upon being no longer available. The bank was well timbered and drained.

Again inspected November 17th. The mine was temporarily idle, and there was no fire in the furnace, but it was evident from measurements made of the current going down the slope that, with a good fire in the furnace, the volume of intake air is ample for 65 or 70 persons. Again, however, it was necessary to complain of a failure to properly distribute the air to the rooms. The current was allowed to travel the entries—just where there was the least need for it—when, with very little difficulty or expense (by using a few curtains), the rooms could be well ventilated. Despite repeated assurances of the Super-

intendent that he desired to strictly comply with the law, it now seems that energetic measures must be taken to enforce compliance with it. The 4th East entry needed propping. The passage from the furnace to the upcast shaft was obstructed by slate.

#### DAVIDSON'S MINE.

Near Uniontown.

P. O. Uniontown.

Operated by Davidson & Sons, a firm composed of Ben C. Davidson, Sr., Ben C. Davidson, Jr., and Henry T. Davidson.

Output for 1894, in bushels: Lump, 97,851; nut, 25,772. Total, 123,623.

Inspected June 8th. The mine was fairly well ventilated, and was dry. There was no safety-gate at the top of the shaft. (The gate was subsequently put up.)

During the year a tower was added to the shaft, and a new steel hoisting rope was substituted for the old one.

Practically no timbering is done in this mine, on account of the strong limestone roof. But, as has been stated heretofore, it is not deemed wise to depend so much on the strength of the roof. The mine is yet small, and no trouble has yet occurred; but as the excavation increases there will be danger of serious results from the crushing of pillars that will certainly occur.

#### WEBSTER COUNTY.

Output for 1894, in bushels: Lump, 223,986; nut, 82,653; run of mines, 446,028; slack, 71,811; mixed lump and nut, 118,682; pea, 88,070; miscellaneous, 17,125. Total, 1,048,355.

Inspections were made by the Chief Inspector and by the Assistant.

#### PROVIDENCE MINE No. 1.

At Providence.

P. O. Providence.

Operated by the Providence Coal Co., W. A. Nisbet, President; W. L. Barnes, Secretary. Directors: W. A. Nisbet, E. B. Hayden and F. D. Ramsey.

Output for 1894, in bushels: Lump, 200,483; nut, 81,903; run of mines, 382,653; slack, 71,811; mixed lump and nut, 118,682; pea, 88,070; miscellaneous (local and heat), 14,000. Total, 957,602.

Inspected July 11th. The mine had excellent ventilation, and was well drained and well timbered.

Inspected again November 9th. The bank was in a fairly good condition, with a few exceptions. On the 6th Left entry two break-throughs were needed in order that four of the rooms could receive air properly. On the 4th Left entry most of the air was traveling the entry. Several rooms on the 3d Left entry were not receiving sufficient air. Some timbering was required on the Slate Shot entry.

No. 2 Mine was not in operation during the year.

#### WANLESS MINE.

At Providence.

P. O. Providence.

Operated by Robert Wanless, Lessee.

Output for 1894, in bushels: Lump, 23,503; nut, 750; run of mines, 63,375; miscellaneous, 3,125. Total, 90,753.

Visited July 11th. There were but three persons employed underground, and the mine (a shaft) was not inspected. The shaft is 43 feet deep. No. 9 coal is wrought.

Inspected November 9th. There were about 15 persons in bank. The condition of the mine is stated in the following extracts from the complaint notice served:

“The ventilation is very defective. Sufficient air is not provided, and what does enter the mine does not circulate so as to reach the working-places in the manner required by law. \* \* \* You are depending practically upon natural ventilation, contrary to law. You are practically doing no propping, and yet running all excavations room-width, *which is dangerous*. I emphatically protest against this dangerous practice. With the number of persons now employed in bank, you must have another outlet, if 15,000 square yards have been excavated. There are no covers and no safety-catches to the cage used for hoisting and lowering persons, and there is no brake on the hoisting drum. They must be provided.”

## IX.

## MINE MAPS.

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BY BEN. W. ROBINSON, M. E.

[Prepared for Eleventh Annual Report of State Inspector of Mines.]

The mining interests of the South and West are fast increasing in magnitude and importance. New beds of mineral are constantly being developed, and new markets are being opened. This march of progress brings better methods and appliances, produces closer competition, and fosters engineering talent.

The nineteenth century marks an era of the world's greatest progress. We have observed the perfection of steam as a motive power, and we have admired the iron horse as he thunders along our highways, carrying his freight of human life with speed, comfort and safety. The ocean greyhound has conquered wind and wave, and makes his trips across the trackless ocean with wonderful speed and precision. No doubt that dream of all inventors—the time when we shall navigate the air—is in the near future.

A new and subtle agency is now claiming the world's attention. Already it lights our streets and our homes and our offices, it warms us and cooks our meals, and carries us swiftly from place to place. Who is there to say where this agency shall end?

The telegraph and the ocean cable place us in touch with our fellow beings all over the world, and as we read the morning newspaper, we gather the gossip as well as the news of every capital of every nation of the globe.

The wonderful telephone, the most wonderful of all the productions of this century, is stretching its wires to every hamlet, every town and city, and to almost every office and every home. We can converse as satisfactorily and as easily with our friends



hundreds of miles away as we could face to face. We can cheaply and satisfactorily transact our business without leaving our homes or offices to do so.

With all the wonderful improvements of this nineteenth century, it seems that we are destined to annihilate time and space altogether. That our mining interests are being carried forward in pace with these improvements can not be denied. The miners' pick has given way for the mining machine. Carrying coal in baskets and pushing tubs by hand were followed by hauling with horses and mules, and these must needs succumb to steam, compressed air and electricity. The era of machinery has come into the life of the miner. The pitchy darkness of underground workings has been transformed into at least a semblance of the light of day. The crude, but honored "Davy" has been outstripped by its progeny. The whirring centrifugal fan sends a blast of pure, wholesome air along the entries and into the working-places, mixing with and diluting and driving out the dangerous and unhealthy gases, and a little instrument sounds a warning note to the miner, letting him know when to retreat from the presence of the deadly fire-damp.

The profession of the mining engineer is one of great responsibility and of trust. It is his duty to provide safety for the miner, to take advantage of the many improvements which are offered, and to grasp best and most economical methods.

In these days of close competition in business of all kinds, the man of brains must take the lead. It requires brains to be a successful doctor of medicine; it requires brains to be a good lawyer; it requires brains to design the stupendous works of engineering of to-day; it requires brains to produce and skill to execute the mechanical wonders around us. No less is brains required in the profession of the mining engineer.

But it is especially of the subject of mine maps of which we are to treat. The author of this paper, some years ago, wrote an article on this subject for the Mine Inspector's Report, in which, in his feeble way, he undertook to impress upon mine owners and mine managers the importance of this subject. He has since read a paper before the "Engineering Association of the South," with the same object in view. He now takes it up



again, inspired by the same hope; and by the hope, also, that he may be the means of inducing others to more fully develop it. He can only treat of the subject in a general way, and hint at the most important features, any one of which would, of itself, form a subject for separate treatment.

It is a fact to be acknowledged with regret that sufficient attention has not been bestowed upon mine maps which their importance would justify. This is true, at least, of this section, (Western Kentucky). They are forced to occupy a secondary consideration in the minds of those who are intrusted with the management of the mines.

The business man, the railroad president or the mine manager of to-day views all things through the spectacles of dollars and cents. Except that we can show the manager that a good map is an important feature in economical production, we can not receive for it his favorable consideration. They are even slow to recognize their necessity, and cause them to be made simply to conform to the requirements of the mine laws. For this purpose they think guess-work is good enough, or at least a few crude measurements with cruder instruments. Strange to say, they are frequently made by men who have never seen the inside of the mine. Too often, in a spirit of economy, does this duty devolve upon the mine boss, who, with his numerous other duties, such as general superintendent, farm boss, boss driver and weighman, is perhaps already overworked. Now the mine boss is good, in his way. He is, in all probability, an excellent man for his position. He may be able to run a line with a compass or to turn an angle. He may have had some initiation into the mysteries of an engineer's transit. He may know how to plat this work on paper, but he is not a mining engineer.

A pharmacist is not a doctor of medicine. A police judge is not a lawyer; or more to the point, an engine driver is not an engineer or a practical machinist of necessity an inventor. Then, also, the work is sometimes left to the county land surveyor who may be excellent in his particular line; but his line is not mine work. He may have a speaking acquaintance with every corner tree in his territory, may be acquainted with the mysteries of fore and afts and side lines; know an old mark from a new one; may know how to turn off the variations of the

needle, or to work out his notes by latitudes and departures ; he may even be acquainted with the fact that 10 square chains make an acre ; but with all these numerous accomplishments he is not a mining engineer, simply because mine work is out of his line. He is ignorant of mine work and methods, and of the requirements of what a map should show.

The successful mine mapper is he who is thoroughly conversant with every feature of mine operations in general, and the special features of the mine he is mapping in particular. Another fact to be deplored is that a mine map is not regarded as a useful work for reference, nor is it used in the planning of operations ; but is held solely as a piece of office furniture, either hung up on the wall to regale the eyes of visitors or relegated to the dust of the lumber room, to be resurrected once a year to send to the mine inspector. It is of no more value to them than is our much abused family Bible to us, which occupies a prominent place on our center table for perhaps no nobler purpose than to show that we are Christian people, or in which to keep a record of marriages, births and deaths. This is not as it should be, and the principal reason lies in the fact that our mine managers are too frequently selected solely for their business qualities, who make no pretension to a knowledge of mine operations or mine engineering. These men, like the mine boss and land surveyor, are good in their line, but it is unfortunate that the health and safety of underground workers are confided to their care. They have mistaken their calling.

No one would be willing to erect a building of any magnitude without the aid of a full and complete plan prepared beforehand. What, think you, would be the result if the construction of a large engine were left entirely to rule of thumb measurements and haphazard methods ? How would a warship look if each workman employed in the construction of it should consult his own ideas in performing his part ?

No man would undertake a journey without being familiar with the geography of his route. But such is done in mine work. The miner launches out without chart or compass. A hole is made in the ground with no particular regard to location ; passages are driven ; changes are made this way and that ; every year brings up new conditions and new changes, until at

the end a correct map of the workings would resemble a child's picture of Kentucky, or a plat of the Mammoth Cave. A few years brings a desire for improved haulage methods, increase of output, and so on; then the trouble begins—but I will not harrow your feelings.

A good, accurate, carefully made mine map will many times repay the operator for the outlay attached to keeping it in such a way that it accurately represents the workings from month to month and from year to year. The map should be a basis from which to make all estimates, such as materials for tracks, timber, drainage and ventilation. It shows how much coal has been taken from a certain block or tract, and how much has been left in the pillars. It should be a basis from which to locate all new workings, pumps, hauling machinery, ditches, crossings, air-ways, brattices, doors, and ventilating machinery.

A full and complete map of the surface should be made before the pick of the workman comes on the ground. The boundary lines of the tract should be accurately located, and a convenient base line permanently marked. This map should be filled in with all important details, showing railroads, public and private roads, houses, fences, streams, lines of outcrop of measures, general direction of hills and valleys, and all permanent objects which shall serve as landmarks for future reference. Elevation of all prominent points above a certain datum should be plainly marked.

The underground map should be a complete representation of the works, just as they are. It should show all shafts, all openings to the surface, all haulage lines, ditches and water crossings, faults, brattices, doors, pumps, engines and machinery; should show all places which are worked out, and those working; should show where pillars have been drawn and where left standing.

All elevations of principal points, such as entry crossings, sumps, etc., should be plainly marked thereon at the proper point. Also height and character of roof should be noted.

In connection with the map, there should be kept a profile, showing in detail, the levels on the principal entries, grades of existing tracks, water-ways, etc.

I want to say that accuracy is, above all, of the most import-



ance in a mine map. An inaccurate, carelessly made map is not worth the paper that contains it.

It is an incorrect basis for estimates; conveys but a general idea of the workings, and, if depended upon for the location of boundary lines, is a producer of endless litigation.

The importance of accurate maps increases as the workings become more extensive, and the problems of mining more intricate. The map should be kept co-extensive with the workings, as those parts of a mine which are abandoned soon become inaccessible, and the chain of record is broken.

In making a map neatness is a desirable feature. While I do not believe in putting any extra flourishes on them, such as delicate shading or elaborate lettering; and while I know that a map of mine workings does not, at best, appeal to the artistic eye, still I think we ought to have due regard to the workmanship which we put on them. The one idea to maintain constantly in view is to make the map answer its purpose in as simple manner as possible, avoiding all lines and marks which are not essential to that purpose.

Engineers, themselves, are too prone to place a low standard upon their own work.

Tunnel surveying has reached an almost incredible accuracy, owing to improved instruments, improved methods, and especially to the high standard which is expected for such work; and should not the practice of mine engineering also demand a high standard? A mistake in the alignment of a tunnel would cause financial loss; but a mistake in a mine survey might even cause loss of life.

The engineering instruments of to-day are being brought to a high state of perfection, which is simply to meet the demand being made by the engineering profession. No workman is able to turn out a creditable piece of work without good tools, and of the proper kind. A good survey can not be made with a jacob staff and a surveyor's chain. These may have answered the purpose for which they were designed; but they have no place in mine work. It excites our mirth, and also our pity, to see some of the antiquated instruments which comprise the engineering outfit at some of our mines. Good guesswork and a good guesser could accomplish equally as good results as could

be arrived at by the use of these instruments. Yet, no doubt, the manager congratulates himself that he has left nothing to be desired when he becomes the proud possessor of these same instruments. Many will think that this picture is overdrawn, but I assure you that it is not the case. I actually saw a man making a survey of a mine (I use the word survey for want of a term to characterize it) with a thing that looked like an oyster can, with two vertical slits in it, the whole mounted on a pointed stick. I did not draw near to make a closer investigation, for fear I should cause offense to the man by laughing, for I could not contain myself. An engineer is completely handicapped in making a survey unless he has an honest, reliable assistant. His duties are necessarily very important ones, in that he is to a great extent responsible for the selection of transit points, and to hold one end of the tape measure. The engineer himself should always assist in measuring, as that is a very important portion of the work, and enables him to make more complete notes of the survey. The assistant is of more service when he is thoroughly acquainted with the mine. He should be a man of more than ordinary intelligence, and above all thoroughly reliable. His usefulness is best displayed when making measurements. To be able to measure quickly and accurately requires no little talent and considerable experience.

It is not necessary to enter into a discussion of how a survey should be made, as each engineer probably has a method of his own. Given a good set of instruments, plenty of time, good assistance, encouragement to do his part well, and any engineer who has not mistaken his calling will do creditable work.

It should not be forgotten that permanent monuments, whose positions are known on the map, should be established. From data supplied by the map, together with these monuments, every point of the mine should be quickly found, not only after a few years have elapsed, but in years after, when others have taken charge in our places.

When our map is complete, it should be a perfect representation of the underground workings. Not only should the engineer make accurate surveys of the work as it progresses, but he should see that the workings are made in the right direction. He should endeavor to educate the miner, the mine boss, and



all who have any part in the direction of the work, that this is an absolute necessity, and he should cause them to take not only an interest but a pride in it.

Finally, the engineer's note book should be regarded as a valuable piece of property, to be taken care of and preserved, and it should be his constant aim to make it so. The notes of all surveys should be classified and indexed, so that any particular point may be quickly and easily found. We should endeavor to leave our business in such a shape that should death call us, or should we move to new fields of labor, another could take up our work where we left it.

EARLINGTON, KY.

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## X.

### BRIEF ACCOUNT OF KENTUCKY'S WEALTH.

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BY C. J. NORWOOD.

This brief account has been prepared in order to conveniently, and, it is hoped, satisfactorily comply with the many requests that are received for a general statement of the natural resources of the State. Its inclusion in this Report is provided for by section 5 of the Mining Law. Details, such as analyses, etc., have purposely been omitted, since not only is it desired to make the statement as brief as possible, but there are special reports still available in the Geological Department from which such information may be obtained.

Kentucky has an area of 41,283 square miles, and within it there are, perhaps, less than 1,000 square miles unfit for agriculture, and less than 200 in irreclaimable swamp. It presents the unique picture of a solid sheet of farming surface under laid, in large part, by mineral stores of exceeding value—the

rare association of fertile soils with mineral deposits of notable extent and excellence.

With a coal-field both to the east and to the west, it is the only State east of the Mississippi, the central cities of which may draw their fuel supply from either hand without passing beyond State lines. No State in the Union has so great a system of natural water-ways, susceptible of being rendered navigable far up toward their head-waters. None excels it in the quality of building materials, other than granite and allied stones. It is rich in iron ores of great excellence, most favorably placed with reference to fuel and flux and geographical position. It has extensive deposits of potter's and fire-clays of exceptionally high quality, vitrifying brick-clays of proved excellence, and abundant stores of paint-clays and ochres. There are large areas of asphaltum rock and of potash marls; large fields of petroleum and of salt brines; considerable deposits of fluor-spar and barytes, carrying some lead; regions of admirable glass sand; quarries of cement rock; beds of phosphatic limestones, sandstones and shales; beds of lithographic limestones, fit for ordinary uses, and which will grow in value; and, in addition to the proved districts of natural gas in the west, there is a large territory in the east where the conditions indicating a probable abundant supply of that fuel are no less favorable than in the neighboring States.

In its geological structure, Kentucky is peculiar among all the States. Crossing the State southwestwardly from the position of Cincinnati is an uplift exhibiting Lower Silurian rocks on the north and Subcarboniferous beds on the south. Passing eastwardly from this geological ridge, we find beds of the Lower and Upper Silurian, Devonian, Subcarboniferous, and Coal measures coming successively to view; while on the west the same formations, with the addition of Cretaceous, Tertiary and Quaternary deposits, form the section to the Mississippi river. To these conditions are due the great diversity of soils, from the blue-grass of Central Kentucky to the cotton lands of the Purchase, and the wide distribution of the ores, clays, coals, etc.

## GEOLOGICAL SCALE.

The sequence of the formations, in descending order, together with a statement of the principal economic materials afforded by each, is as follows:

## I. QUATERNARY.

*Divisions are:* 1. Alluvium and Brown Loam. Thicknesses variable. 2. Loess, 20 to 30 feet, (in "Jackson's Purchase.")\* 3. Port Hudson beds, 24 to 50 feet (in "Jackson's Purchase.") 4. The Gravel Beds, of "Jackson's Purchase," 87 to 124 feet.

*Economic materials are:* Refractory clays, road material (the noted "Paducah gravel"), pigments, very excellent iron ore (limonite), and moulder's "sand."

## II. TERTIARY, (in "Jackson's Purchase.")

*Divisions are:* 1. Lagrange, 12 to 20 feet. 2. Lignitic, about 25 feet. 3. Porter's Creek, about 100 feet. 4. Hickman, 6 to 15 feet.

*Economic Materials are:* Fine pottery clays, glass-pot (?) clays, lignite, gypseous clays (possibly available for cement), terra cotta clays, and glass-sand.

## III. CRETACEOUS, (in "Jackson's Purchase.")

*Divisions are:* Ripley Sands, Ripley Clays—thickness about 100 feet.

*Economic Materials are:* Polishing material, fire-brick clays.

## IV. COAL MEASURES.

*Divisions are:* 1. Lower Coal Measures, 800 to 2,500 feet. (Greatest thickness is in the Eastern field. Thickness not accurately determined for either field.) 2. Conglomerate Measures, 0 to 1,600 feet. (Greatest thickness is in the Eastern field.)

*Economic Materials are:* 1. In Coal Measures.—Domestic, steam, and coking coals, cannels, fire-clays, tile-clays, clays for common pottery, iron ores (carbonate), some good building stone.

2. In Conglomerate Series.—Bituminous coals (excellent), admirable building stones, pottery clays, iron ore, salt brine, some asphaltum rock.

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\*The region known as "Jackson's Purchase" includes that portion of the State that lies west of the Tennessee river.

## V. SUB-CARBONIFEROUS, (Mississippian Series.)

*Divisions are:* 1. Chester (Kaskaskia) Group, 400 to 700 feet, (Possibly reaches a greater thickness in certain Western countries, and is feebly represented in certain eastern ones.) 2. St. Louis Group (probably Warsaw in part), 10 to 500 (or 800 ?) feet. 3. Keokuk-Waverly Beds, (Logan and Cuyahoga, of Ohio, in part), 200 to 500 feet.

*Economic materials are:* 1. In the Chester Group.—Potash marls ("Leitchfield marls"), vitrifying brick clays, pigment earths, bottle-glass sand, asphaltum rock (large areas).

2. In the St. Louis.—Fine structural stones (white oolitic and blue), road material, street and paving material, some lead and zinc, fluor-spar (extensive deposits), excellent iron ore (limonite), ordinary lithographic stone.

3. In the Keokuk-Waverly Series.—Tile and pottery clays, iron ore (carbonate), excellent building stones (including the noted Rowan county stone), mineral water springs, petroleum, gas.

## VI. DEVONIAN.\*

*Divisions are:* 1. Ohio (Cleveland) Black Shale, 50 to 100 feet. 2. Corniferous (probably L. Helderberg in part), 15 to 50 (?) feet.

*Economic materials are:* Petroleum, gas, salt brine, phosphatic nodules, marbles for indoor work, cement rock.

## VII. UPPER SILURIAN.

*Divisions are:* 1. Niagara, about 18 feet (probably 30 feet in the southwest). 2. Clinton, 25 to 50 feet. 3. Medina (?) 9 to 35 feet.

*Economic materials are:* "Crab Orchard salts," in Niagara shales). Building stones, paints, petroleum, oolitic hematite (Alabama "dyestone ore"), in the Clinton.

## VIII. LOWER SILURIAN.

*Divisions are:* 1. Upper Hudson (Lebanon of Ohio), 270 to 300 feet. 2. Middle Hudson ("Silicious Mudstone" series), 150 feet. 3. Lower Hudson (L. Cincinnati), 175 to 200 feet. 4.

\* The distinct separation of the Devonian from the Upper Silurian is here given provisionally and for convenience. The division is not sharply marked. The two formations merge into each other. The interval between well identified Corniferous and plainly recognized Niagara is deemed L. Helderberg by Prof. Edward Orton.



Trenton, 175 to 185 feet. 5. Birdseye, 125 to 140 feet. 6. Chazy, 225 to 350 feet.

*Economic materials are :*

1. In Hudson river series. Principally building stones and petroleum.

2. In Trenton. Excellent building stones, some lead and zinc, baryta (large deposits), phosphatic limestones (afford the "blue-grass" soils). Possibly petroleum.

3. In Birdseye. Fine building stones; beautiful, cream colored marble for structural and sculptural purposes (this may be Chazy.)

4. In Chazy. Some lead, baryta, fine building stone, salt brine, "Blue Lick" water.

The surface areas of the various geological formations—the character of which determines the agriculture—are as follows :

Lower Silurian. Limestone with occasional

beds of calcareous shale. Includes the

"Bluegrass Region." Forms "Central"

Kentucky. About ..... 9,000 square miles.

Upper Silurian and Devonian. Coarse and

silicious limestones and shales, with some

cherty sandstone (Upper Silurian); and

black bituminous shale, with some lime-

stone, (Devonian). Occur principally as

a rim around the Central Kentucky region.

About ..... 1,200 square miles.

Keokuk-Waverly Series of the Subcarbonif-

erous. Silicious shales with beds of sili-

cious limestone, and fine-grained, close-

textured sandstone. Occur principally in

Allen, Monroe, Cumberland, Barren, Bul-

litt, Russell, Casey, Powell, Rowan and

Lewis. Largest development is in the

first four counties. About ..... 3,000 square miles.

St. Louis and Chester groups of the Sub-

carboniferous. Principally limestones,

many of them quite pure, (St. Louis);

with sandstones, marls and coarse, thin-



bedded, earthy limestones above, (Ches-  
ter.) Occur principally in Southern and  
Western Kentucky (in 25 counties), and  
in Rockcastle, Pulaski, Russell, Wayne  
and Clinton counties. About ..... 9,500 square miles.  
Coal Measures. Sandstones and shales.  
Occur in 20 counties in the western and  
in 33 in the eastern part of the State ..... 15,680 square miles.  
More recent formations. (Cretaceous, Ter-  
tiary and Quaternary.) Loams, clays,  
sands, etc. Cover the counties west of  
the Tennessee river. About ..... 2,500 square miles.

It will be seen that in consequence of the diversity and  
peculiar distribution of its geological formations Kentucky is  
singularly rich in a mineral and agricultural way. When its  
great system of water-courses shall have been adequately im-  
proved, there can be no good reason why Kentucky should not  
become one of the great mining and manufacturing States  
of the Union.\*

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\*The areas, except for the Coal Measures, have been roughly determined from the  
geological map issued by the Kentucky Geological Survey, 1891.

## THE COALS.

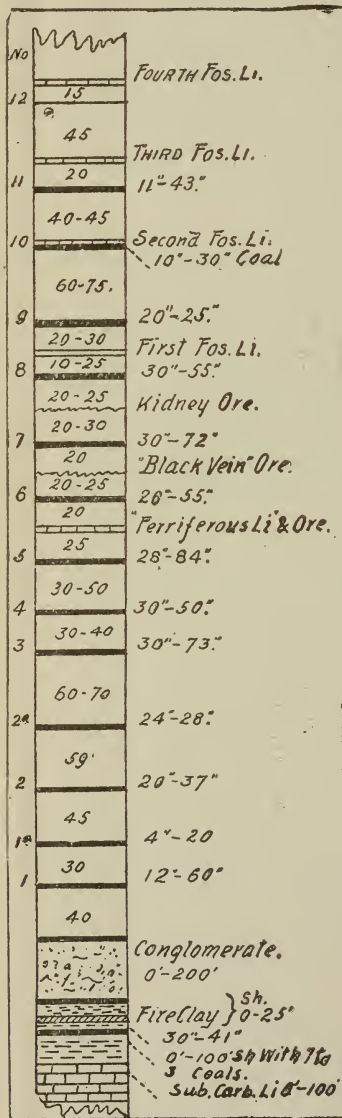
The State has an aggregate of 15,680 square miles of coal-bearing measures, disposed in two distinct fields, comprising a portion of the Appalachian in the east and a part of the Illinois or Central in the west. The areas of the fields are as follows :

Eastern field, square miles . . . . .	11,180
Western Field, square miles . . . . .	4,500

Total square miles . . . . .	<u>15,680</u>
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A very large proportion of each field is productive. Each contains from nine to twelve workable seams above the conglomerate-sandstone series that lie at the base of the coal measures, and in the Eastern one there are from two to six beds (from one to three being workable) included in the conglomerate series.

Coal occurs in 53 counties, and workable beds are found in fifty-one. Forty-five counties are either in whole or in large part covered with the coal-bearing measures, and in eight others there are outliers of considerable extent. Commercial mining is conducted in from twenty-three to twenty-six counties; twelve to fifteen in the Eastern Field, and eleven in the Western one. Kentucky has, perhaps, larger areas of persistently workable high-grade bituminous coal than has any other State.\*



NORTHEASTERN DISTRICT.

\*The distribution of the coals, in each field, is discussed in the Writer's Annual Report for 1893.

Coking Coal (one to three seams) occurs in not less than ten counties in the Eastern field. In eight of them as high-grade

		Highest point in Pike
150-175	10'?	Flatwoods C.
300		
50	80"-92"	Amberg's.
24"		
		Fossil Li.
150		
60-85	45"-54"	Many partings.
25"	2'-6"	Wiscers.
125-150	3'-80"	Up. Splint. =
100-130	3'-5'	L. Splint. =
125-150		Thin.
15-40	40"-108"	Elkhorn.
20-40	1'-42"	Wrights.
60-100	3'-5'	Sand Lick.
25	1'-3'	Combs's.
300-40		
25-25"		Conglomerata.

Elkhorn District.

coking coal is found as is known in this country. The most notable bed is the "Elkhorn" seam (the Kentucky equivalent of the noted "Imboden" coal of Southwest Virginia),\* which is developed in its greatest thickness—9 feet in some places—in Pike, Letcher, Floyd, Knott and Harlan counties. It has been traced as a thick bed over an area of not less than 1,000 square miles. This coal produces a coke containing from 92 to 94 per cent. of fixed carbon, from 5 to 6 per cent. of ash, and from seven-tenths to eight-tenths of 1 per cent. of sulphur. The coke is admittedly equal, and in some respects superior, to the best Connellsville fuel—the standard of this country, and has been pronounced equal to the "Durham," the standard of England. Results of analyses and furnace tests of the coke made from the Pineville extension of the coal have been given in a preceding Report.† In the same field are two or three other coking coals, one of them of proved excellence. This field of coking coal is more favorably situated with reference to cheap and high-grade iron ores, and principal points of consumption, than is any other coke field in this country. It needs transportation facilities.

In the Western field two excellent coking seams, remarkably persistent in thickness and quality, are found in seven counties.

\*See Mr. Hodge's paper on the correlation of these coals in this Report.

†Report of this Office for 1889, p. 23.

They are the beds from which coke is made in Hopkins and Union counties. The percentage of sulphur in the coke precludes it from the iron furnace, under present practice, but for domestic use and many manufacturing and certain smelting purposes it is all that need be desired.\* The coke acts well in the furnace, carries the burden well, and it is not unlikely that it will yet find service in blast furnaces running on pure ores.

Cannel of superior quality—much of it admirably suited for gas-making, and practically all of it valuable for domestic use—is found in sixteen or seventeen counties in the Eastern field. Seven or eight of the coal horizons in that field carry cannel. These cannel beds, some of which are superior to the best cannels of Scotland, are remarkable, not only for their richness in volatile elements and their persistency, but for the high candle-power possessed by the volatile constituents. There are few examples showing less than 40 per cent. of volatile matters, while many yield 44, 50, and even 60 per cent., exhibiting at the same time low percentages of ash and less than 1 per cent. of sulphur.†

In the Western field three of the coal beds (Nos. 1, 5 and 11), frequently carry cannel in notable thickness, and of such quality as to enhance the value of the bituminous product mined with it. The richest known deposit of cannel (the Breckenridge), is found in that field.

The accompanying plates show the relative positions, etc., of the coals in the Western field. Vertical sections for the Eastern field have been given in the text.

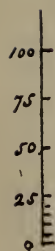
### THE IRON ORES.

There are four special and persistent iron ore horizons in the State, namely :

1. In the lower part of the Coal Measures, both in the Eastern and in the Western field, where stratified carbonates and limonites occur at several regular levels. The ores of the Ash-

\*See Mr. J. B. Atkinson's paper on Western Kentucky Coke, Report of this Office for 1889.

†See Mr. Hendrie's paper on cannels, and the special sets of analyses, in Report of this Office for 1893.





[illegible]

CORRELATED BY  
*C. J. NORWOOD.*  
1892

land portion of the Hanging Rock iron region, in Greenup, Carter, Boyd and Lawrence counties, occur here. The limonites of this district run from 33.50 to 46.22 per cent. of metallic iron, and the carbonates yield from 29.73 to 34.42 per cent. The excellent quality of the iron made from the ores is so well known as to need no comment. In the Western field, lying partly in Edmonson, Grayson, Butler, Hart and Muhlenberg counties, is a region wonderfully rich in ores of this period. In Ohio county, also, there are some important deposits. In the Nolin river district (within the first four counties just named), in addition to considerable local deposits, one of which yields 53 per cent. of metallic iron, there are three special ore horizons. The lower one holds from eight inches to two feet of ore, which runs from 22.9 to 35.5 per cent. of iron, and the upper bed ranges from two to six feet in thickness, and yields from 34.4 to 46.1 per cent. of metallic iron. For general purposes, the composition of the ores of these regions may be stated thus: Metallic iron, 33 to 49 per cent.; silica, 11 to 30 per cent.; phosphorus, 0.2 to 1.5 per cent.

2. On top of the St. Louis member of the Subcarboniferous Limestone, both in the Eastern and in the Western field, and in the Southern part of the State, occurs a brown hematite of notable excellence. It is the ore from which the celebrated "Red river car-wheel iron" has been made, in the Red River Region of Estill, Powell and Menefee counties—also showing in Wolfe, Lee and Bath; and from which the equally celebrated "boiler-plate iron," of the Cumberland river district, including parts of Trigg, Lyon, Caldwell and Livingston counties, was made. The ore also occurs in the Nolin district, and in a number of the western counties (including Crittenden, Christian, Hart, etc.), in which the upper St. Louis is well developed. It has also been found in the southeastern part of the State along Pine Mountain. The ore ranges from one foot to several feet in thickness, and yields an average of 45 per cent. of metallic iron. Analyses showing as high as 55 per cent. of iron have been obtained. When transportation shall have been so cheapened that the high-grade ores of the great lake regions may be brought for mixing with these ores in the Cumberland river district, that region will again become one of the noted iron-making districts of the Union.

3. Ore of the Oriskany period, yielding 47.77 per cent. of metallic iron, is brought to the surface along the northern front of Pine Mountain, in Bell and other southeastern counties. Little has been done with it beyond proving its presence as a thick deposit, quite persistent along the line of the mountain.

4. Ore of the Clinton epoch, the equivalent of the oolitic "dye-stone ore," which extends along the eastern face of the Alleghenies from New York to Alabama, is found in Bath county, and there is reason to believe that it may be reached by drifting at the base of Pine Mountain. The writer called attention to the latter fact in 1875. The Bath county ore has long been used at the Ashland furnaces.

#### MISCELLANEOUS ITEMS.

Even brief descriptions of all the elements of the State's mineral wealth would extend this chapter much beyond the limits deemed proper for it. Something, however, should be said some of them.

*Fluor spar.*—It should be noted, with respect to Fluor-spar, the great value of which for metallurgical purposes and for glass-making is receiving renewed attention, that it is abundant in Caldwell, Crittenden and Livingston counties. For years almost the entire production of fluor-spar in the United States has been limited to the region about Rosiclare, Illinois; and yet the veins in Western Kentucky, which occur in the same geological relations as those at Rosiclare, are more numerous, have a greater linear extent, and are more readily traced than those of Illinois, and the spar is of equal excellence with that of Rosiclare.\*

*Barytes*, the consumption of which as a substitute for white lead is steadily increasing, is found in considerable quantities in the rocks of Central Kentucky.

*Our Asphaltum Rock*, the principal bed of which forms a member of the upper Subcarboniferous series (Chester) in a number of the western counties, is not essentially different from

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\* See article on Fluor Spar in "The Mineral Industry" for 1893, published by the Scientific Publishing Co., New York., N. Y. Notes on the Kentucky deposits are given therein, by the present writer.

300

200

100

75

50

25

0

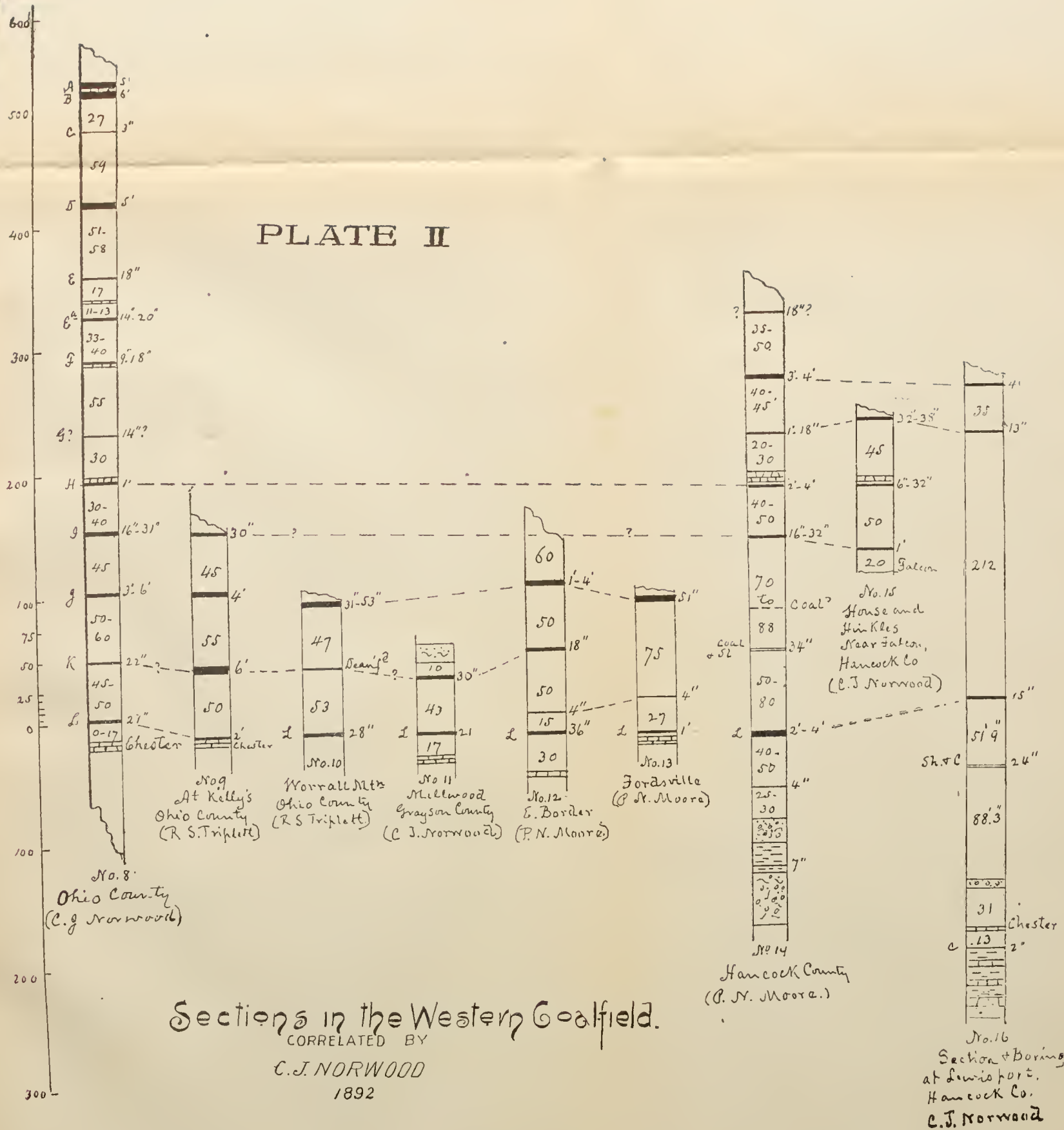
100

(C

200

300

# PLATE II





the product of Santa Cruz and San Luis Obispo counties, of California. The great excellence of the material for paving streets, flooring cellars, etc., is well known. There are large areas of the rock in Kentucky, of superior quality. Fine examples of it may be found in Breckenridge, Hardin, Grayson and Logan counties, where it has been quarried for shipment. It also occurs in Carter and perhaps other counties in the eastern part of the State.

*Fire-clays* of proved excellence are found in Carter, Madison and other counties in the Eastern coal-field, particularly along the margins of the Subcarboniferous outcrops. Also in Ohio and other counties in the Western field, and associated with the upper members of the Subcarboniferous in various parts of that section of the State. They are especially abundant in the more recent formations of the counties west of the Tennessee river. Concerning the Carter county clay, which is already widely used, Mr. K. B. Grahn, a manufacturer of fire-brick, says: "The Ohio fire-brick, which ranks so highly in Chicago, Pittsburgh and the South—wherever the best and most refractory article is used—owes its excellence to no other circumstance than to the Kentucky flint clay, without which it could not be made." Several formations afford an abundance of flint for mixing with clays that lack only a quantum of silica to bring them to a point of great excellence.

*Pottery-clays* for ordinary purposes abound in the State. It is in the Purchase district, however, that pottery clays of especial merit are to be found. Dr. Karl Langenbeck, formerly of the "Decorative Art," etc., factory, Cincinnati, has pronounced the unrefractory clays of this region to be "equal to the finest in England." Of the clay from which the samples of ware now on exhibition in the State Cabinet were made, by the Rookwood Pottery, Cincinnati, Dr. Langenbeck says: "With the addition of some flint [it] makes a very beautiful ivory-ware, almost exactly resembling that made by the celebrated firm of Copeland & Sons, in England, for table and toilet sets." Dr. R. H. Loughridge, in his report on the "Purchase," says a number of these clays "compare favorably with the German glass-pot clays, which are so celebrated for their great refractory character."

*The Petroleum* regions best known lie in the southern part of the State, embraced in portions of the counties of Adair, Clinton, Metcalfe, Allen, Monroe, Wayne, Barren, and all of Cumberland. While they may here receive no more than a passing notice, it may be said that there is reason to believe that the shipment of petroleum will eventually become one of the most important industries of the State. Although operations have, in some fashion, been carried on in this oil district for many years, comparatively small results were accomplished because of lack of transportation ways. Within the last two years, however, the quest for oil areas has been prosecuted with vigor, and with good results. When transportation is given it, this territory will become an inviting field. In addition to the region just mentioned (perhaps geologically a part of it), there is a belt lying within the Eastern coal-field, trending southwardly from Warfield, Martin county, which is receiving much attention, and which is giving promise of extraordinary production. Operations in Floyd county have developed the existence of a particularly promising field in the region of Prestonsburg.

*Structural Stones* in great variety occur in every section of the State. In the Lower Silurian series are gray, buff and cream-colored marbles, admirably suited for structural and sculptural purposes. The Clay Monument, at Lexington, is an example of their suitableness for such class of work. The colonnade fronting the "old" Capitol is another example of the "Kentucky Marble." The building itself is a specimen of the "Birdseye marble" from the same series. The "Cumberland Sandstone," of the Upper Hudson group, when well developed, in many respects resembles the celebrated Buena Vista stone of Ohio, and may be found over a large territory. Towards the base of the Subcarboniferous (in the Waverly series) occurs one of the most valuable sandstones, for structural purposes, to be found in this country. It is the equivalent of the Buena Vista stone, and underlies large areas of the State. It is quarried in a number of places, but most largely in Rowan county, and is well and widely known as the "Rowan county stone." The St. Louis group of the Subcarboniferous affords limestones of unsurpassed excellence for all structural purposes, and includes a lithographic stone fit for ordinary work. This group is espe-

cially well developed in Western Kentucky, the product of the quarries about Bowling Green, Hopkinsville, Russellville and Princeton being well known in Southern and Western markets. In the upper part of the series occurs a beautiful colite, the equivalent of the Bedford, Indiana, stone. It is now quarried principally at Bowling Green, though well developed in a number of the western counties. Mr. W. C. Day pays an especial tribute to its merits in "Mineral Statistics" for 1890, and calls attention to its great similarity to the Portland oolite of Ireland. Unlike the Bedford stone, which darkens, the Bowling Green stone bleaches and remains comparatively white when used for structural purposes. Handsome examples of the Subcarboniferous limestones are also to be found on the Rockcastle and Cumberland rivers, in the southeastern part of the State. A sandstone which occurs in the upper part of the Subcarboniferous (the "Big Clifty Sandstone" of Western Kentucky), and several of the sandstones of the Coal Measures, are frequently quite good for bridge piers and foundations. One of the handsomest building stones in the State is derived from the "Conglomerate" at the base of the Coal Measures. It is finely developed at Hawesville, Hancock county. Very many of the limestones take a handsome and durable polish.

### BRIEF PROPOSITIONS.

In any effort to adequately set forth the natural resources of this Commonwealth, it is difficult to avoid the appearance of exaggeration, but it seems safe to record these propositions:

1. Kentucky is to be the great coal mining State of the South, and one of the foremost in the Union. It is now making unquestionable progress in that direction. Those who have their eyes upon Alabama and West Virginia may be skeptical about this; but the prediction is not made without due consideration having been given to the present and probable future conditions in those States. I am not unmindful of the fact that, with its present artificial advantages, Alabama is producing about 1,800,000 more tons of coal than is Kentucky, and that the production of West Virginia exceeds that of this State by from 5,000,000 to 7,000,000 tons. But the natural advantages are



with Kentucky, and when certain projected transportation ways shall have been opened this State will quickly go to the front. The completion of the Louisa dam on the Big Sandy will give us, in the Tug and Levisa forks, a second "Kanawha region" in one of the richest parts in the Eastern coal-field; additional water transportation will be given by the Kentucky and Licking rivers; and the building of at least two lines of railroad in that field is reasonably well assured. A large increase in the production of the Western field is, I think, beyond question. The further improvement of the Green and Barren rivers should enhance the value of all coal lands bordering them. Coal may be shipped to southern ports from mines on those rivers practically the year round.

2. Kentucky is to be well to the front, not less than third, I believe, in the production of iron-making coke.

3. It has a certain future as an iron and steel making State. This, in the light of present conditions, may be questioned by some, but I do not hesitate to venture the prediction.

4. It is to be one of the great clay mining and pottery producing States. The State is wonderfully rich in deposits of superior clays, fit for most of the uses to which clay is put. In this respect it is little, if any, less rich than Ohio, which leads in clay productions, and where the productive value of the clay industries now exceeds that of the coal industry, which formerly stood first.

5. It is to take high rank among the States producing economic stone, (limestone and sand-stone). In the contemplation of our large stores of coal, we have given too little attention to our wealth in limestones and sandstones for structural, architectural and sculptural purposes. If properly developed, our quarries would be second in importance only to our mines.

6. Kentucky is to be one of the leading petroleum producing States. Developments are now going forward in the south central and eastern parts of the State, that place this fact beyond question.

7. It will supersede Illinois as the fluor-spar producing State, and I look for that interest to develop into an important industry.

8. It has the largest areas of limestone soil needing but little

artificial fertilization of any State in the Union. Our soils should particularly interest the farmer of the Northwest. Here he will find soils formed in place, constantly renewed from the decay of the immediately underlying rock, and in rich fine particles ; whereas, his Northwestern soils are mostly of silicious "drift" material, a mixture of comparatively coarse sand, clay and gravel, hence less durable than are those of Kentucky, and when exhausted serviceable only as planting ground for crops that must be fed by artificial fertilizers.

9. The State has an abundant store of a natural fertilizer—carrying phosphoric acid and potash—for its sandstone soils.

10. In addition to the known beds of phosphatic limestone—occupying an area of notable extent—it is probable that other phosphatic deposits will be developed, near the junction of the Devonian "Black Slate" and the Subcarboniferous.

11. It has in abundance the elements for the manufacture of earth-pigments, soda-ash, cement (Rosedale, Portland, and hydraulic), salt, paving material (of clay, shale, and asphalt rock), terra-cotta lumber, and lime ; and it has notable stores of barytes, second-class lithographic stone, flint, glass sand, and natural gas.

12. It is a close second, among all the States, if not first, in acreage of hardwood forest, and is notably rich in the softer woods.

The Engineering and Mining Journal, of New York, one of the most conservative technical journals published, has said :

"The mineral resources of Kentucky are well worthy of the attention of our readers. Kentucky is by nature, beyond all question, one of the most highly favored States in the Union. It possesses a superb climate, where the Anglo-Saxon race can attain its maximum development free from the stunting influence of the severe climate of the far north and from the annealing effect of southern heat. \* \* \* There are certainly few places on this continent that to-day offer as great opportunities for the profitable investment of capital as do the mineral, grazing and timber lands of Kentucky."



## XI.

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### ON THE CORRELATION OF THE KENTUCKY COALS WITH THOSE OF BIG STONE GAP, VA.

BY JAMES M. HODGE.

[Prepared for Eleventh Report of Inspector of Mines, State of Kentucky.]

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In 1883 the Elkhorn Coal of Pike county was discovered to be a coking coal by Mr. R. C. Ballard (Thruston), of the Kentucky Geological Survey. Later work of the Survey northward led to the conclusion that this bed was identical with the No. 3 of the Northeastern coal-field, and this was to some extent verified by tracing the bed westward down the Kentucky river to the boundary of the coal measures.

In neither direction, however, was a positively complete chain of evidence obtained, but the probability is so strong in favor of the assumption that it may be taken as a fact which can be disputed only after years of development of the intermediate regions shall have given contradictory data, which only such work can supply.

It is known that this bed is of good thickness, increasing southward, over a large area of the southeastern counties, and it may be safely assumed to extend over the whole coal-field north of Pine Mountain. The supposition is natural that it also extends southward of the barrier, which the fault of that mountain has interposed, retaining some of the characteristics which distinguish it on the north.

Such a bed has been found in the "Imboden" bed of Wise county, Virginia, supposed to be about the same distance above

the conglomerate formation as the Elkhorn bed in Pike and Letcher counties, having an equal thickness, and the same character of coal and coke, which in their analyses agree as closely in their constituents as could be expected from two samples taken from different parts of any one mine. This latter point is the more remarkable in that the results show, similarly, coal and coke inferior to none in the country.

These facts alone seem sufficient to warrant an assumption of identity of the coals, and all work since done in attempts to trace their connection has tended to confirm it. Mr. John R. Procter, formerly Director of the State Geological Survey, has declared them identical,\* and all other geologists, so far as I am aware, who have examined both fields, have concurred in their opinions to the same effect.

In consequence, it has been generally believed that the bed would be found to maintain at intermediate points its favorable conditions. Not until a recent report issued by the United States Geological Survey—Bulletin No. 111, "Geology of the Big Stone Gap Coal Field of Virginia and Kentucky," by Marius R. Campbell, dated 1893, but which reached my hand only last fall—has anything been published to the contrary. In this it is maintained that such greater thickness of measures intervenes between the Imboden bed and the conglomerate than is found below the Elkhorn bed as to render their identity doubtful, and that the Imboden is "a local development of an otherwise unimportant seam."†

The high authority which the work of the U. S. Government has justly obtained through its usual accuracy, the thoroughness with which Mr. Campbell treats his subject, and the confidence with which he asserts his conclusions, would entitle them to credence, but that other work, done with more attention to the details, seems to controvert the very basis upon which all his conclusions in this matter rest.

Because of this difference of views, and of the resulting inference drawn, as to whether the upper Cumberland river field carries the Elkhorn or Imboden coal in quantity or not, this paper, which must depend almost wholly upon investigations of

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\* Report on Big Stone Gap, p. 10.

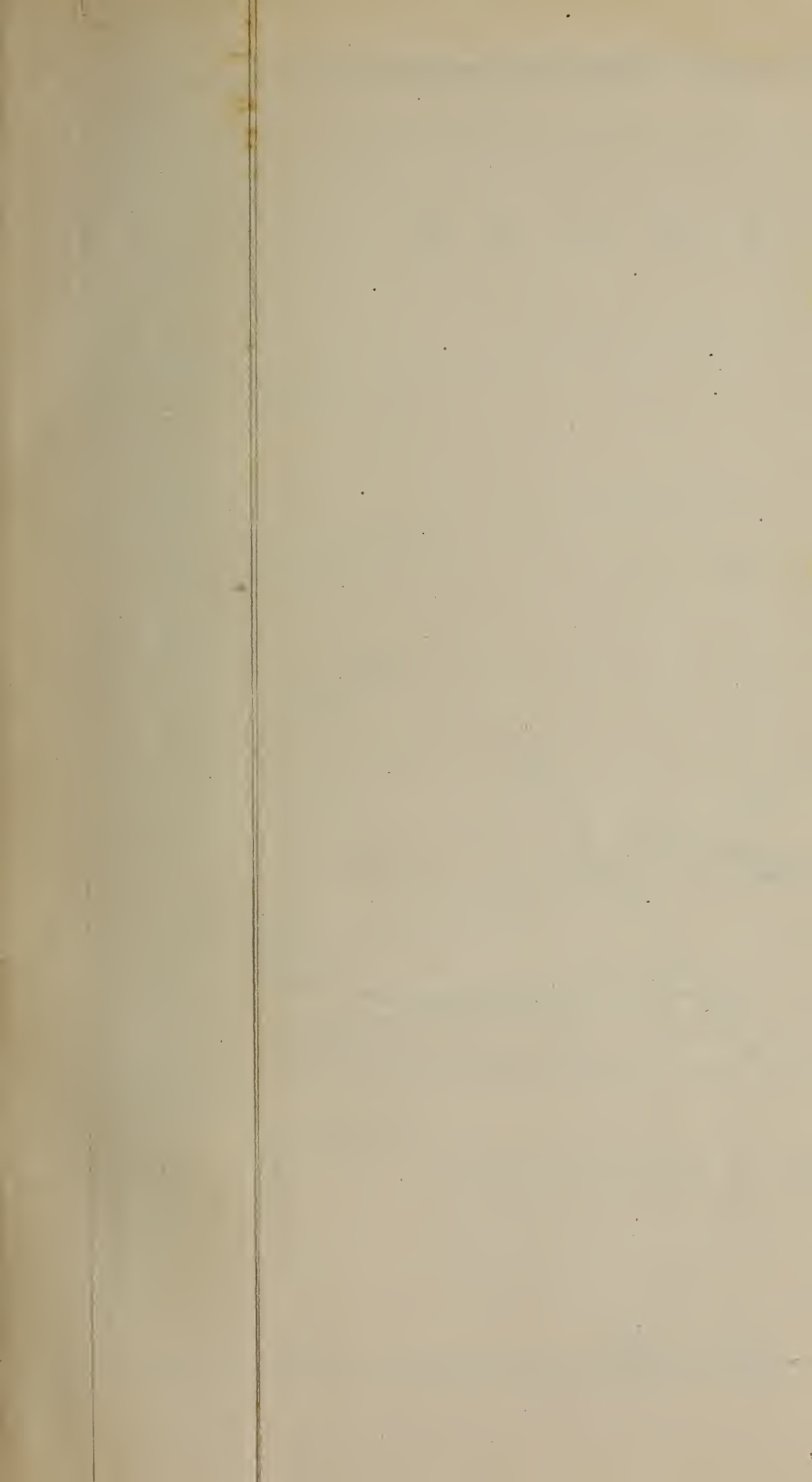
† Op. cit., p. 95.

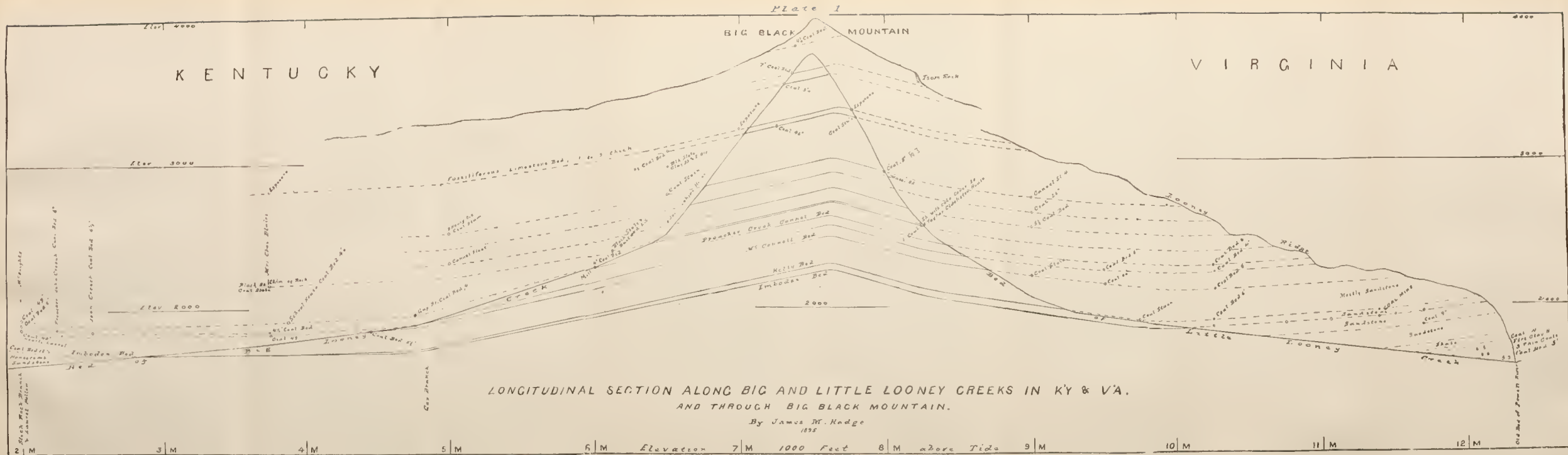
former years for its material, is written. The importance to Kentucky of a right knowledge is manifest. In the one case we shall find a reliable and (in the south) particularly fine coking coal-bed extending across the State into Virginia; in the other, two distinct beds of uncertain thickness on the upper Cumberland waters, but both probably worthless. Consideration of other beds may here be set aside.

In a paper of mine, in the "Transactions of the American Institute of Mining Engineers," 1892-'93, was the first published attempt to connect the Poor-fork coals with those of Wise county, Virginia. At that time I had prepared longitudinal sections through Big and Little Black Mountains, but excluded them from the paper for want of fuller information along their lines. While there are still some points on which further proofs of identity of beds are needed, the sections are now given, in Plates I and II, as representing as far as present knowledge admits the correlation and inclination of the measures there. The thickness of coal-beds as given in these two sections includes partings. In the vertical sections, Plates III and IV, the beds are given in detail.

Most of the longitudinal distances of the Big Black Mountain section were necessarily estimated, but the principal points of the Little Black section were obtained from surveys. Heights were obtained by barometer, most of them from the average of two or more readings.

In making the Big Black longitudinal section, after having located the openings, lines were drawn connecting those known to be of the same bed, those low down in the valleys being frequent enough for doing so with considerable certainty. The fossiliferous limestone, high up, gave means of determining the pitch of strata on the Kentucky slope of the mountain, and then the intermediate bastard limestone (changed into calcareous concretions at the head of Little Looney Creek), gave the reversal of pitch on the Virginia side. The remaining openings were connected, one with another, in lines nearly parallel, and show a uniformity strongly indicative of correct correlation; such variations as exist being easily attributable to incorrect distances or heights, or to actual differences in thickness of intervening strata.







In drawing the Kelly bed to a connection with the Imboden, warrant is obtained not only in the fact that the Imboden of Big Looney creek presents an excessive alternation of coals and shales sufficient for them both, but also in the fact that the two beds evidently coalesce between Little Looney and Coal branch, Pigeon creek. A half mile south-west of the South Atlantic & Ohio railroad mine, on Little Looney, the distance between the beds is reduced from 45 feet at the mine to 25 feet, and thorough search which I have made on Coal branch and on Big branch (between Pigeon and Little Looney) revealed the existence there of but one bed. Nor in the upper Crab Orchard has the Kelly bed been found. This evidence of conjunction tends to the theory of unity elsewhere, but whether the junction is on the north or south side of Big Black mountain is uncertain and not now important.

In a similar way, but from more accurate data, the Little Black mountain section was prepared. The Imboden bed (below drainage on the head of Clover Fork), McConnell, and Splint (Preacher creek canal) beds prove absolutely a depression of strata toward Clover Fork from the south, while the High Splint bed gives proof of a syncline there, and of an anticline along Middle Ridge and the Little Black mountain. For the exact determination of these, close instrumental work is necessary, but their existence is now clear. The small or badly cut up intermediate beds show some correspondence, but their variability is still more striking.

The fossiliferous limestone bed, though occurring high up in the measures, has proved a most valuable and reliable aid in the study of the measures all along Clover Fork, and on the Looney creeks. Being a thin seam, it is not easily found, but when discovered it at once fixes with certainty the horizon of the measures in its vicinity. It is usually unmistakable in the profusion of fossils it carries, and on Clover Fork in its dark color. Eastward, it grows lighter.

Where found on Razor fork it showed no fossils, and may be a different stratum, but, lying the same distance below the High Splint bed as in other places, it is most likely that they were not found because the few feet length of surface exposed, too hard to break with the light hammer available, was insuffi-

cient to betray them. At all events the fossil bed can not be far distant. Two other thinner seams of limestone appear there in the shaly sandstone within twenty feet below.

The Big Black section, following to some extent the course of the streams, is necessarily on a crooked line, though approximately at right angles to the mountain range. The straight line of the Little Black section, also at right angles to the direction of the mountain, continued northwest some half dozen miles from Clover fork, would intersect the Big Black section near its Kentucky end. In that distance there must be, then, a depression of strata amounting to about 300 feet—600 feet from Middle ridge. The Virginia ends of the sections are about six miles apart.

Having drawn those sections, the two vertical sections were prepared from them, giving the presumptive distances of each bed from the mountain tops. From the thicknesses of coal, etc., given with each, generally as found at the nearest opening on either side, inferences of thicknesses at intermediate points may be drawn.

While the Little Black longitudinal section is given with full confidence in its accuracy as regards the principal beds, it must be stated that some doubt exists as to some of the connections made through Big Black Mountain. The fossil limestone, found in three places along the line, is an unerring guide, but its great vertical distance from the Imboden bed, which is the one most particularly important, and the long distance the latter must be carried below drainage, give room for a possible error in carrying it through that mountain.

I formerly inclined to the view that the Imboden was one of the group of three beds\* about 200 feet higher on Big Looney creek than I now place it; and to that view Mr. R. C. Ballard Thruston, who has devoted more time than any other geologist to the study of Cumberland river coals, still holds.† But the distances of the limestone bed agree so closely in the two sections, that I am more disposed to accept such correlation as does not require allowances for inaccuracies of barometric deter-

\*Transactions A. I. M. E., Vol. XXI: The Big Stone Gap Coal Field, page 926.

† Private letter, January 25, 1895.

G I N I A

Elev. 4000

Elev. 3000

Shale 4 1/2'

Coal

Shale

Coal 77'

Thin Coal

Coal 56'

Thin Coals

School House

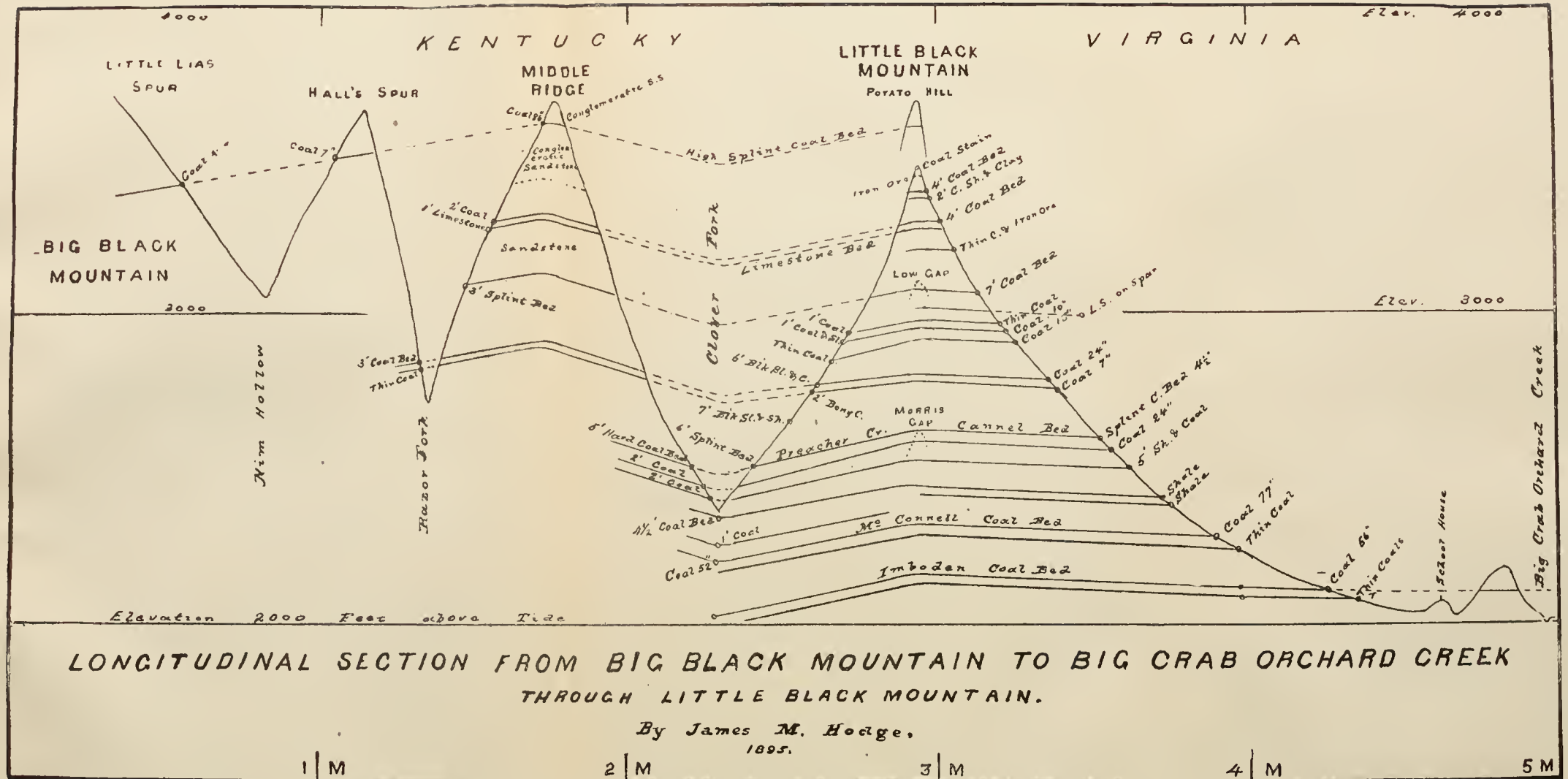
Big Crab Orchard Creek

RAB ORCHARD CREEK

4 | M

5 M

Plate II



LONGITUDINAL SECTION FROM BIG BLACK MOUNTAIN TO BIG CRAB ORCHARD CREEK  
THROUGH LITTLE BLACK MOUNTAIN.

By James M. Hodge,  
1895.



minations, or for uncorrected side inclinations of strata, or assumes variation in their thickness, when none such are known to exist.

A further proof is added in a section from Childs creek given by Messrs. McCreath and d'Invilliers,\* in which the limestone is placed at 1,020 (plus or minus) feet above the "Bailey" coal, which is undoubtedly identical with the lowest coal on Big Looney creek given in my Big Black section. These three sections give intervals between the two beds of 1,150, 1,100 and 1,020 (plus or minus) feet.

On the head of Roaring fork the limestone is 1,305 feet above what all agree is the Imboden bed. Correcting this distance for dip, which I have carefully worked out there, the interval becomes 1,365 feet. At first sight, this seems unaccountably large, but 75 feet of it is immediately explained by the coalescence of the Kelly bed with the Imboden on Big Looney creek, and the remaining excess is almost exactly in the ratio of increase from Childs creek to Big Looney.

The result is such that I can concur neither in Mr. Thruston's opinion that the Imboden is 200 feet or more higher than I represent it on Big Looney creek, nor in Mr. Campbell's that it is some 300 feet lower.

Having traced the Imboden bed to the Cumberland river, there remains the more difficult task of showing its identity with the Elkhorn bed.

The fossiliferous bed which has served to good purpose so far is no longer of aid, for though such a bed has been found by Prof. A. R. Crandall 600 to 700 feet above the Elkhorn coal,† and on the Leslie-Perry county line by myself probably 450 feet above the same coal,‡ the variation of intervals in these widely separated sections, and of the included strata, precludes correlation by this means, and even throws doubt upon the identity of the limestone itself. And above the coal the limestone appears to be the only possible horizon from which to work, though later developments may prove the splint or the "Dean" coal beds to be of assistance.

\* Resources of the Upper Cumberland Valley, p. 62.

† Ky. Geol. Survey: The Pound Gap Region, p. 28.

‡ Ky. Geol. Survey: The Upper Kentucky River, Pl. XXIII, section 73.



Below the coal its distance from the conglomerate formation may serve the purpose in part.

By the general section for the northeastern Kentucky counties,\* coal No. 3 is distant from this formation generally about 225 feet. In Breathitt county I have found it at about 190 feet,† and in Wolfe county this interval decreases to 150 feet.‡ The Pineville coking coal is shown by Prof. Crandall to be about 350 feet above the conglomerate,§ and this coal is probably the Imboden again, being 650 feet below the "Dean" coal, (a bed easily distinguished all along the Cumberland river by its peculiar fire-clay parting), which McCreath and d'Inwilliers put at 600 (plus or minus) feet above the Bailey coal on Childs creek.

These authors also give, but with some uncertainty, the distance of the Bailey coal on Clover fork from the conglomerate some 400 feet.||

Prof. Crandall estimates the Elkhorn bed in the Pound Gap region to be, on an average, about 370 feet above the conglomerate formation.§ Mr. Thruston somewhat roughly estimates it to be 450 to 500 feet on the Poor fork, Cumberland river, a few miles below Big Looney creek, but on account of heavy and variable dips would require instrumental work for its accurate determination.¶

My impression has always been that about the same distance intervenes in the neighborhood of Big Stone Gap, though a long familiarity with the region has failed to bring to light any means by which it could be positively fixed. In fact, nowhere between Pennington Gap and Norton are there any exposures from which reliable measurements may be taken. It is possible that beyond Norton, on the mountain fronting Tacoma, they may be made, but as yet it has not been attempted there. The difficulty lies not so much in determining the succession and

\*Ky. Geol. Survey: Greenup, Boyd, Carter, and part of Lawrence counties.

† Ky. Geol. Survey: The Upper Kentucky river, p. 67.

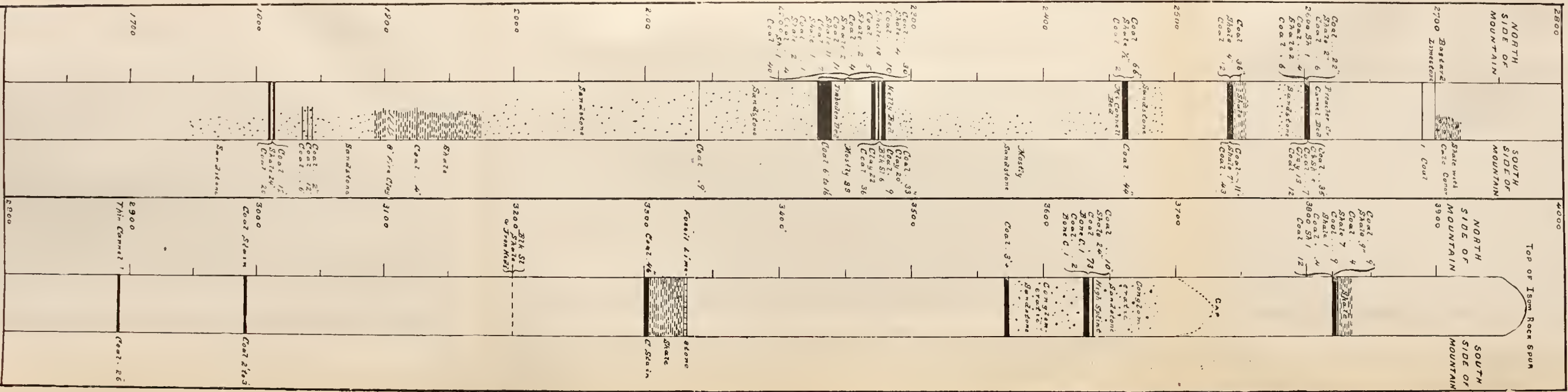
‡ Report to Pine Mountain Coal & Iron Co. (See Ninth Annual Report, Inspector of Mines for Ky., 1892; diagram facing p. 116.)

|| Op. cit., pp. 41, 55.

§ Ky. Geol. Survey: The Pound Gap Region, p. 28.

¶ Private letter, January 25, 1895.





VERTICAL SECTION - BIG BLACK MOUNTAIN,  
AT HEADS OF THE LOONEY CREEKS.

thickness of the various strata, as in deciding what is the top of the conglomerate series.

What evidence has so far been adduced, outside of Mr. Campbell's work, goes to show that the interval increases slowly southward toward Pine Mountain, reaching a thickness there of about 400 feet, and still further south remains about constant.

But without the full settlement of this question there remain the facts heretofore stated, upon which too much stress can not be laid, that in Pike and adjoining counties there is a large area of thick coking coal of remarkably fine quality, of which there is an exact counterpart in the Big Stone Gap field. This striking resemblance of the coal and coke of the two fields, and the apparent correspondence of their position, can not fail to strike every observer, and each point tends to corroborate the view which the others impress upon him. Mr. Campbell alone refuses to accept this as evidence, disregards all aids which may be had by tracing the coal beds themselves, ignores the tests of chemical analysis, and attempts to overthrow all preconceived opinions of this question, by means of a sandstone which no one else has been able to distinguish from those above and below it.

In order to show how he has failed in this, it is necessary to criticise in detail many of his statements.

In the first line of his description of the general geology of the field,\* he makes a misstatement, which must be ascribed to his lack of familiarity with the field. There *is* a bed of limestone, though he says there is none, which has proved "one of the best guides to correlation." Had he found it, it might have saved him from some subsequent errors; but, though previously noticed by both McCreath and d'Inville in the work heretofore cited, he appears to have overlooked it.

After calling attention in three separate paragraphs of that same page to the variability of sandstones, and their unreliability as a means of correlation, and then giving his own classification of the measures, he attempts, by means of an incorrectly identified sandstone, to reduce the results of other geologists to expressions in his own terms. He finds, of course, discrepancies, which he correctly states, in regard to the thickness of his

\* Op. cit., p. 27.

“Norton” formation, “are due to the absence of any well-marked stratum from which to measure, and the great amount of disturbance it has suffered in the uprising of the Powell Valley anticline.”\*

Under the caption, “Formations,”† Mr. Campbell describes what he calls the “Harlan” sandstone, generally known here and in Kentucky as the Upper Conglomerate. This he says has a well-marked base of 30 to 40 feet, and a total thickness of about 100 feet. Doubtless the part exposed, where he measured it, presented such thickness, but on Middle Ridge, at the head of Clover Fork, it is 250 feet thick, conglomeratic throughout, and probably elsewhere it is of like thickness. The rock is divided by coals and thin shales into several members, all so nearly alike that I have as yet been unable to discover any characteristic by which one may be distinguished from the other, and after having been repeatedly misled through that same tendency to cliff-making, once supposed to reside in the lowest member, I have come to regard it a very uncertain guide.

Mr. Campbell assumes in McCreath and d’Invilliers’ section from Childs creek, and in my former section of Big Black Mountain, that the bottom of the lowest member is represented, but in neither is this the case. The base of another high cliff at the head of Childs creek, not included in the section referred to, 135 feet above the limestone, is, instead, the base of that rock, corresponding with the bottom of the conglomeratic rock on Middle ridge, 120 feet above the limestone, as shown in Plate II; and Isom Rock, shown in Plate I, instead of being the base of the rock as he supposes, is well up toward the top—about 300 feet above the limestone.

At points between these, Potato hill and Middle ridge,‡ he has evidently found the base; other points which he gives I have no check upon, excepting that on Hall’s spur, north of Middle ridge, he notes the cliffs as being higher, whereas the strata dipping northward, they should be found lower than on Middle ridge. The thorough prospecting about the heads of Clover fork of the remarkable “High Splint” coal-bed there

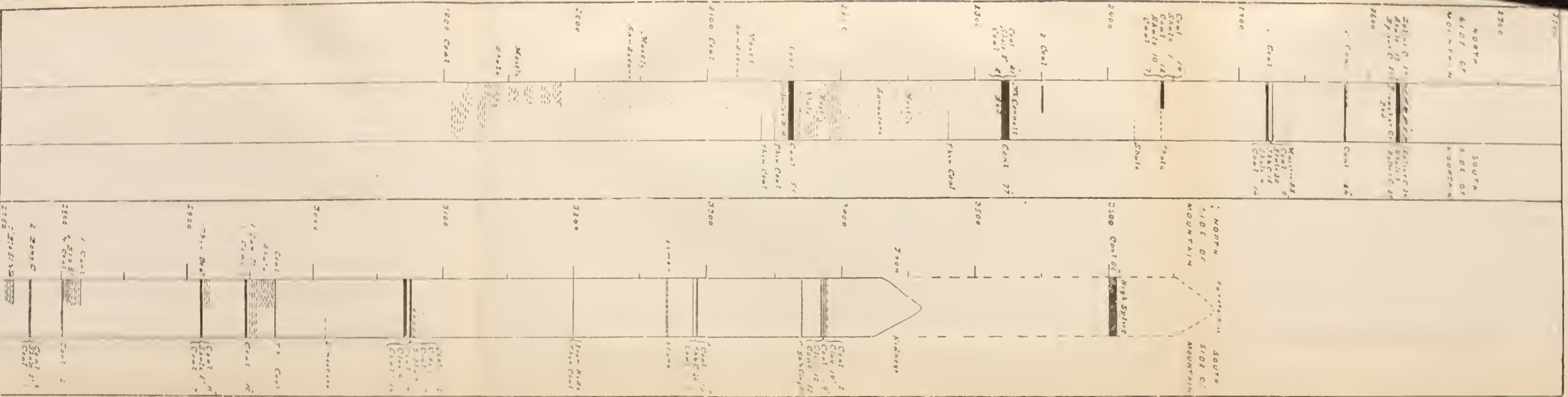
\* Op. cit., p. 29.

† Ibid, p. 31.

‡ Op. cit., p. 32.







VERTICAL SECTION-LITTLE BLACK MOUNTAIN.  
ONE MILE EAST OF MORRIS GAP.

has proved this beyond question. In point of fact the coal lies in the midst of the cliff-making rock, and in surveying its outcrop around Hall's spur, the line ran between cliffs above and below it. In several places the coal was opened in "rock-houses."

From such an untrustworthy basis, Mr. Campbell proceeds to work out the structure of the region. That the dips so obtained are frequently correct is due in the main to the fact that he often worked from a true horizon, and an error of 100 or 200 feet, where the dips are moderately heavy, might pass unnoticed, but that it is subsequently introduced into the strata below.

Mr. Campbell's next attempt is to define and trace a rock, his "Gladeville" sandstone, lower down in the measures. Although characterized as "without doubt the best guide to the structure and stratigraphy that can be found,"\* he discovers its conditions reversed at the ends of the field; in one case shaly on top, in the other massive and conglomeratic.\* On Callahan creek he includes with it shale above and below.† Along the Poor-fork he noted it on every branch as "a very conspicuous object,"‡ yet found there "other heavy sandstones of the same general character as the Gladeville, which can with difficulty be separated from it by physical characteristics," and finally uses the coal-beds for its identification.

These notes indicate that this sandstone is not a very reliable guide. Though perhaps unnecessary to add more, the accompanying figure is presented, illustrating in detail the changes that have taken place in a distance of one and a half miles in what Mr. Campbell identifies as the Gladeville sandstone. The description of the rock is taken from the record of borings, which I made in 1891 for the Interstate Investment Co., by whose permission the drawing is published. The borings were made in the sandstone below the McConnell bed on the Clover fork, and in the Crab Orchard, Va., nearly in the line of my Little Black mountain section.

That Mr. Campbell has himself failed to follow correctly his Gladeville sandstone is easily proved. Its distance from his

\*Op. cit., p. 33.

†Ibid, p. 63.

‡Ibid, p. 41.

Harlan sandstone is given as 1,270 feet, which makes it 1,170 feet below the fossil limestone. This corresponds with the honeycomb sandstone on Big Looney creek, and is so far concurrent with his views. But, referring to Plate II, the same distance from the limestone in Little Black mountain brings us to the sandstone below the Imboden bed, to an elevation 2,100 feet above tide for the top of the sandstone, while the bottom of his sandstone, as described for the upper Crab Orchard,\* would be at about 2,180, making its top but about 870 feet below the limestone, instead of 1,170 as above.

On Pot Camp fork (Whitley's fork by U. S. Geological Survey map), assuming the limestone 1,170 feet above the sandstone, and the latter as given on the next stream, Callahan creek, as 120 feet thick, its bottom is then 1,290 feet below the limestone. The Imboden bed there is, as previously stated, 1,365 feet below the limestone, making an interval between sandstone and coal of but 75 feet, instead of 196 feet as Mr. Campbell gives it.† But this supposes no change of thickness of strata. To compare with the Big Looney creek section, 75 feet must be deducted for the interpolation of the Kelly bed and subjacent strata, and a further allowance made for still other increase of thickness toward Pot Camp fork, and the honeycomb sandstone of Big Looney is again clearly below the Imboden bed.

While placing no confidence in the sandstones of this region as a means of correlation, except for short distances, it should not be overlooked that the honeycomb sandstone of the lower Clover fork (under the Bailey coal of Childs creek), and on Big Looney and other branches of Poor fork, is well represented in the heavy sandstone below the Imboden bed in the Crab Orchard, on Pigeon, Little Looney and Callahan creeks, and on Roaring fork.

The number of cases Mr. Campbell gives as checking the thickness of his Wise formation‡ can not be regarded as strengthening his position, since, as has been shown, he has been misled in his identification of the rock to which he measures.

\* Op. Cit., p. 57. † Ibid, p. 63.

‡ Op. cit., p. 31.

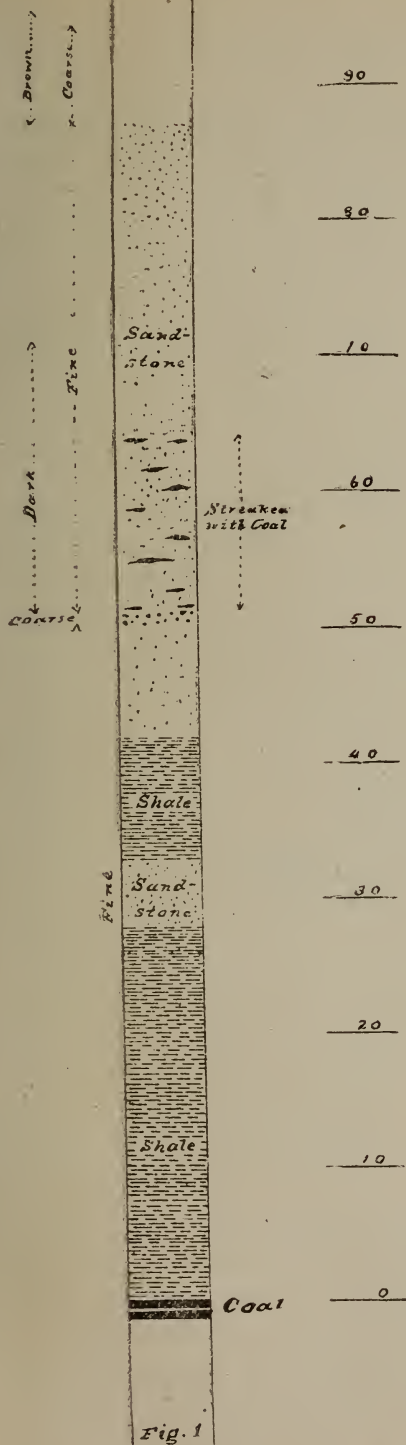


Fig. 1

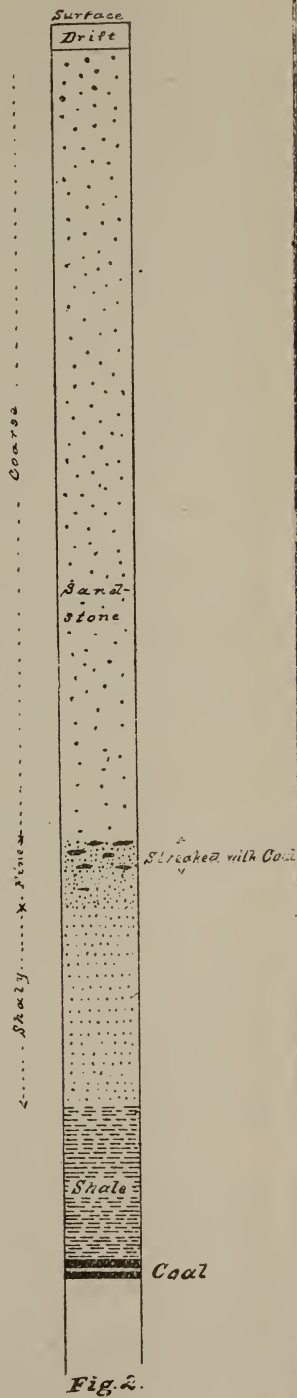


Fig. 2



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As none of his tests are located in his paper, it is impossible to point in detail to their errors.

Finally, in regard to the base of the coal measures, the differences of the various observers have resulted largely from their determination of the top of the conglomerate series, and it is doubtful if this point will ever be satisfactorily settled at Big Stone Gap. Probably no better knowledge of it can be obtained than through familiarity with its conditions north and south of Pine Mountain in Kentucky, and those who have worked in the latter fields are nearest in accord on the subject.

I have previously pointed out the fact that the lower conglomerate (Penn. XII) loses its pebbles in passing from Wolfe and Lee counties into Breathitt and Clay,\* and also indicated that it may have presented an uneven floor for subsequent depositions, or have been more or less replaced by shale. These considerations make any measurement from it uncertain in this region, without some guide in the measures above it, for one can rarely be sure otherwise, in passing over a considerable distance, that some such change has not taken place, or detect just what the change may be.

The somewhat tentative evidence here given of the interval between the Imboden bed and the conglomerate formation may be supplemented by comparison of the intervening coals near Big Stone Gap with their probable equivalents in Kentucky.

Throughout Eastern Kentucky, the No. 1 coal is generally close above the top of the conglomerate series, represented by a very durable sandstone, sometimes containing but often without pebbles. No. 2 is an unimportant bed, excepting for its occasional cannel, lying usually in shales not far below another durable sandstone, generally quite conspicuous, which underlies coal 3.

And these conditions are fairly represented at Big Stone Gap. No. 1 coal, a constant bed, with a massive sandstone beneath it, appearing near the base of Stone mountain, all along the field, from Pennington gap to Norton; No. 2 represented by the thin seams in shale of the Big Black section, found near the mouth of Little Looney creek; and No. 3 by the Imboden bed having its heavy sandstone below

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\* Ky. Geol. Survey: "The Upper Kentucky River," pp. 63, 108.

Though confident that this correlation is correct, should it ever be proved otherwise, it is more likely, in my opinion, that the Imboden is below the Elkhorn than above it as Mr. Campbell infers, because of the number of coals below the Elkhorn bed which appear to have no representatives at Big Stone Gap. But some of those coals are probably only local deposits.

Mr. Campbell gives a detailed statement of rocks which he finds in his Norton formation.\* Starting from the "Bee" rock (which we have no reason to think is the top of the conglomerate series), he has by measure 730 feet of shales and sandstones, "then more shales and sandstones greatly folded and crushed," which, defying measurement, he very properly omits giving the thickness of. Following, he correlates a sandstone near the railroad bridge, standing at 70 degrees, with one above the Double Tunnel lying flat. What evidence he has of their identity I have not been able to discover, although I have looked for it many times.

Nevertheless, with (perhaps because of) such uncertain data he finds a close agreement with two other sections measured elsewhere, presumably as unreliable. A fourth section he condemns on the score of contradictory recorded dips, but the error is probably due to incorrect correlation, and one is forced to conclude that his measurements result in "but a rude estimate."

Of the four sections, the first can not be depended upon for accuracy at either end, and is verified by an unreliable check; the second, he states, is "not substantiated by any other measured section;" the third was measured where McCreath and d'Invilliers have traced the coals with care, and in a detailed report of them† refrain from mentioning the sandstones, presumably because they do not present a trustworthy horizon from which to work; and in the fourth, not only are the two ends of the section uncertain, but the middle is too much distorted for measurement, and a correlation there has to be guessed at.

Likewise, the thickness of the conglomerate series must be regarded as of little value. How far the rocks in Big Stone

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\*Op. cit., p. 35.

† The Virginia and Tennessee Coal and Iron Company's property.

Gap have been compressed into a greater than normal thickness, or squeezed into less, can be determined only by boring in the close vicinity, or, approximately, by the partly exposed section near Tacoma.

Not being sufficiently familiar with the rocks of that neighborhood, I can give no data on that point, but it appears to me likely that the "Sheep" rock conglomerate mentioned by Professor Leslie, referred to as the "Gladeville" sandstone by Mr. Campbell,\* is a return to the conglomerate form of one of the sandstones of the conglomerate formation. In other words, that the Gladeville sandstone proper is some 400 feet below the Imboden coal, and is (probably) the top of the conglomerate series.

To satisfy Mr. Campbell's theory, it is necessary to account for the presence of pebbles in a rock midway between the sub-conglomerate and that which lies near the top of the series—an occurrence without parallel in this region—which Mr. Campbell does not attempt to explain.

The reliance which he places on his Gladeville sandstone for identifying the coal-beds themselves, leads him into such frequent errors that it is useless to try to follow him in it. But as an indication of the haste with which his field-work appears to have been done, a couple of instances will be mentioned.

On Big Looney creek, above and near the honey-comb sandstone, he found but three beds of coal,† while in fact there are four, and in following these up that and adjacent creeks, he is consequently much confused in his correlations. That there are four beds, as shown on my section along Big Looney, is certain, for the upper three have been opened, one above the other in close succession, in a bed of a little stream called Slick Rock branch, while the fourth, 200 feet lower, was opened almost directly across the creek, near the mouth of Laurel hollow.

Again, on Clover fork, above Razor, he states that no coal of value had been found "though a few outcrops were located."‡ In this he has overlooked a very conspicuous entry into the McConnell coal, then made and still open, in a field a half mile

\* Op. cit., p. 28.

† Op. cit., p. 45 et seq.

‡ Ibid, p. 56.



above Razor fork, which has 46 inches of coal and a parting of but 2 inches. Several other openings into the same bed near the creek, about the mouth of Razor fork, he also passes unnoticed.

I made an attempt to prepare a comparative statement in figures of the thickness of the coal measures as I interpret them on the basis given by Mr. Cambell, but, finding that what will apply in one part of the field will not do so in another, this plan had to be abandoned, and I will, therefore, limit the statement to what my own studies have led me to believe is very nearly correct, separating the measures into parts which may be definitely fixed over the whole field.

Taking the highest point of Big Black Mountain at 4,150 feet elevation, and allowing 180 feet for pitch of strata from Isom Rock Spur, which is a close approximation, the measures above the fossiliferous limestone are 1,050 feet thick. Between the limestone and the Imboden bed they are about 1,150 feet thick, and below the Imboden bed to the top of the conglomerate series, assuming the sandstone at the mouth of Little Looney creek to be the top, about 350 feet, making a total of 2,550 feet, or 980 feet less than Mr. Campbell's estimate. But in his estimate he goes to a lower rock than I do. Had he given his estimate of thickness down to the rock at which I stop, the result would have been somewhere about 2,750 feet, 200 feet more than mine.

The importance of the Elkhorn Imboden bed so far throws into the shade others of the field that little notice of the others is here required. It will be observed that the McConnell bed, also excellent for coking, is of good thickness on both sides of the two Black mountains. In the Crab Orchard it will be attacked soon.

Other beds are so far behind these in accessibility or value, that it is better to leave careful consideration of their extended correlations till time shall have given information more in detail for their determination.

BIG STONE GAP, VA., February, 1895.



## XII.

## LAWS RELATING TO MINING, ETC.

Upon examination of Section 3, of the Mining Law, it will appear that, by the amendment made by the last General Assembly, the time allowed in which to "comply with the directions of the Inspector," has been materially reduced.

All persons, therefore, who undertake the opening of shaft mines, in which more than ten persons are to be employed, and those who are now working shaft mines with only one outlet, under the provisions of Section 9, and intend to employ more than ten persons underground, should govern themselves accordingly. The first class should start the second outlet at the time of sinking the main shaft, if the depth is greater than can be penetrated within forty days as the extreme limit; the second class should start the second outlet long enough in advance of increasing their underground force to enable them to complete it within the limit allowed after increasing their force.

It is believed that in the case of drift mines and of slopes, and in that of shafts which are already provided with the necessary outlets, the time allowed for complying with the Inspector's directions is quite sufficient.

Following is

## THE MINING LAW.

AN ACT to provide for and regulate the ventilation of coal mines in this State and for the better protection of miners, enacted by the General Assembly of 1891-93, and amended at the session of 1894.

*Be it enacted by the General Assembly of the Commonwealth of Kentucky:* § 1. That there shall be appointed by the Governor, with the advice and consent of the Senate, an Inspector of Mines, who shall hold his office for four years, and until his

successor is appointed and qualified ; but he shall be liable to be removed by the Governor for willful neglect of duty or malfeasance in office. Any vacancy in the office of Inspector which may occur when the Senate is not in session shall be filled by appointment of the Governor till the close of the next session of the Senate. Said Inspector shall have a practical knowledge of chemistry, geology and mineralogy, and shall also possess a practical knowledge of the different systems of working and ventilating coal mines, and of the nature and properties of the noxious and poisonous gases of the mines, especially fire-damp, and he shall also have a practical knowledge of mining and engineering ; and said Inspector shall, before he enters upon the discharge of his official duties, be sworn to discharge them faithfully and impartially, which oath shall be subscribed on his commission, and certified by the officer administering it, and his commission so indorsed shall be filed with the Secretary of State in his office ; and said Inspector shall give bond in the penal sum of five thousand dollars, with surety, to be approved by the Governor, for the faithful discharge of his official duties.

§ 2. Said Inspector shall give his entire time and attention to the discharge of the duties of his office, and it shall be a part of his duty to visit and inspect, as often as may be necessary, all the coal mines in actual operation in Kentucky, and to see that the provisions of this act are complied with by the owners, agents and superintendents of all the mines in this State.

§ 3. Said Inspector shall have power to visit and inspect any mine to which this act applies. He shall examine into the condition of such mine with respect to ventilation, drainage, timbering and general security ; and if, upon inspection, he finds that such ventilation, drainage or timbering as the health or safety of the persons employed in the mine would require has not been provided, or should he find the mine insecure in any part, or should he find that sufficient means of ingress and egress have not been provided, said Inspector shall at once notify the agent, superintendent or owner of the mine as to the unsafe or unwholesome condition of such mine, and require him to put the mine in a safe and wholesome condition, and such mine shall forthwith be rendered safe and healthful. For a failure to comply with the directions of the Inspector to render such mine safe,

and to provide such ventilation as is sought to be secured by this law, and to provide safe and suitable means of ingress and egress, within *twenty* days from the date of the inspection, the agent or superintendent and owner shall be liable to a fine of fifty dollars per day for every day that such mine shall be suffered to remain in such unsafe or unhealthful condition after the expiration of the *twenty* days above provided in which the required improvements should be made, which fine may be collected by indictment by the grand jury of the county in which such mine is situate; but in cases in which the Inspector is satisfied, from personal investigation, that, even if due diligence is observed, the required improvements can not be completed within the thirty [20] days above provided, he shall have authority to extend the time for not more than *twenty* days longer; but when the time is thus extended, the agent, superintendent or owner who is delinquent after the expiration of the additional time, shall be subject to indictment and fine as above provided; and as a cumulative remedy in case of failure of any owner, agent or superintendent to conform to the provisions of this law, after notice from the Inspector, within the time provided by this section, any circuit court, or the judge in vacation, may, on application of the Inspector, by civil action, in the name of the State, enjoin or restrain, by writ of injunction, the said owner, agent or superintendent from working or operating such mine with more than five persons until it is made to conform with the provisions of this law. But before such writ of injunction shall issue, the owner, agent or superintendent shall have at least three days' notice of such contemplated action, and shall have the right to appear before such court, or the judge in vacation to whom the application is made, who shall hear the same on affidavits and such other testimony as may be offered in support, as well as in opposition thereto. It shall be the duty of the Commonwealth's attorney of the district, and of the county attorney of the county, in which the mine lies, to prepare and prosecute proceedings upon said application. [This section is in accordance with amendment approved March 3, 1894.]

§ 4. The Inspector of Mines shall keep an office in the State House at Frankfort. He shall be provided with all necessary stationery, to be supplied by or through the State Librarian as

other offices are supplied ; and he shall keep a record of all the inspections made by him, and shall furnish a certified copy of his report of the inspection of any mine inspected by him to the Commonwealth's Attorney of the district in which the mine is situated, on application therefor, which copy shall be admissible in evidence in any court in this Commonwealth, and shall be *prima facie* evidence of the truth of recitals therein contained.

§ 5. Such Inspector, while in office, shall not act as agent, or as a manager or mining engineer for, or be interested in operating any mine, and he shall annually, on or before the tenth day of February, make report to the Governor of his proceedings for and during the calendar year ending on the thirty-first day of December, and of the condition and operation of the coal mines in this State, enumerating all accidents which shall have occurred in or about the same, and giving such other information as he may deem useful, and making such suggestions as he may deem important as to further legislation on the subject of mining. The Inspector shall also report the number of persons employed in and about the mines, and the amount of coal mined ; and, for the purpose of enabling him to make such report as is required by this section, the owner, lessee, agent or superintendent of every mine to which this law applies is hereby required to give, each month, accurate information, on blanks to be furnished by the Inspector, as to all accidents occurring in and about the mines, the number of persons employed, and the amount of coal mined, during the preceding month ; and the owner, lessee or superintendent, refusing or failing to furnish the Inspector such information for sixty days after application therefor has been received, shall be liable to a fine of fifty dollars, to be recovered in the county in which the mine concerning with such information is refused is situate. The Inspector is authorized to extend his observations, so as to be prepared to report upon the mining possibilities and mineral resources of the counties to which he is called in the prosecution of his duties as Inspector. One thousand copies of the Inspector's annual report shall be printed for general distribution.

§ 6. The Inspector shall receive an annual salary of eighteen hundred dollars, payable monthly, and shall likewise be allowed and paid his necessary traveling expenses when absent from his



office on business connected with his department; and he shall keep on file in his office maps and plans of all coal mines in operation in this State, which maps, plans, and all the books, records, and apparatus of his office, he shall carefully keep, and turn over the same, with all official correspondence pertaining to his office, to his successor; and upon application of the owner, agent, lessee or superintendent therefor, he shall make out a duplicate of any map on file in his office of any mine owned or operated by the owner, agent, lessee or superintendent making such application, for the making of which duplicate a fee of five dollars must be paid, and which fee shall, within thirty days after its reception, be paid into the State Treasury by the Inspector receiving it.

§ 7. There shall be provided for said Inspector all instruments and chemical tests necessary for the discharge of his duties under this law, which shall be paid for on the order of the Inspector, and which shall belong to the State.

§ 8. The owner, agent, lessee or superintendent of every coal mine in this State, to which this law applies, shall annually, within sixty (60) days after the first day of January, make, or cause to be made, an accurate map or plan of the workings of such mine, on a scale of not more than one hundred feet to the inch, showing the area mined, and the form of the excavations up to the said first day of January, together with the location and connection with such excavations of the lines of all adjoining lands, and the name or names of each owner or owners so far as known, marked on each tract; a true copy of which map the said owner, agent, lessee or superintendent shall deposit with the Inspector of Mines within seventy days after said first day of January, and another copy of which shall be kept at the office of such mine. But, after the making and filing with said Inspector of the first map of the mine, as required herein, the owner, agent, lessee or superintendent shall only be required to annually make and file with said Inspector, within the times herein specified, such additional map and statement as may be necessary to truly show the progress of the workings and the amount of excavation of said mine from the date of the preceding map or survey up to the first day of January, as provided herein. The Inspector shall annually, on or before the first day



of January, give warning notice that said map is required ; and upon the refusal or failure of the agent, owner, lessee or superintendent receiving such notice, to make, or cause to be made, such map within the sixty (60) days, and deposit the same with the Inspector within the seventy (70) days, specified herein, said owner, agent, lessee or superintendent shall be liable to a fine of five dollars (\$5) a day for each day elapsing until said map is made, said fine to be recovered in the county in which the mine to be mapped is situated. The correctness of each map provided for by this section shall be certified to by the person making such map ; and the Inspector may reject any map as incomplete, the accuracy of which is not so attested.

§ 9. It shall not be lawful for the owner, agent or superintendent of any coal mine, worked by a shaft, slope or drift, wherein fifteen thousand square yards have been excavated, to employ more than ten persons to work therein, or to permit more than ten persons to work in such mine, unless there are to every seam of coal worked in each mine at least two separate outlets, separated by natural strata of not less than one hundred feet in breadth, by which shafts or outlets distinct means of ingress and egress are always available to the persons employed in such mines ; but it shall not be necessary for the two outlets to belong to the same mine ; and every shaft opened after the passage of this act shall have two such separate outlets, after fifteen thousand square yards shall have been excavated ; and to all other mines, whether slopes or drifts, two such openings or outlets shall be provided within twelve months after the passage of this law, provided fifteen thousand square yards have been excavated at or before the passage of this law, or if not, then within twelve months after that extent has been excavated. In case any coal mine has but one shaft, slope or drift for the ingress or egress of the men working therein, and the owner thereof does not own suitable ground for another opening, such owner may select appropriate associate adjacent surface ground for that purpose, and have the same condemned, and appropriate the same by proceedings in the county court of the county where the mine is situated, similar to proceedings now allowed by law for securing a private passway.

§ 10. The owner, agent or lessee of every coal mine, whether

slope, shaft or drift, to which this act applies, shall provide and maintain for every such mine an amount of ventilation of not less than one hundred cubic feet of air per minute per person employed in such mine, which shall be circulated and distributed throughout the mine in such a manner as to dilute, render harmless, and expel the poisonous and noxious gases from each and every working-place in the mine, and no working-place shall be driven more than sixty feet in advance of a break-through or air-way; and all break-throughs or air-ways, except those last made near the working-face of the mine, shall be closed up and made air-tight by brattice, trap-doors or otherwise, so that the currents of air in circulation in the mine may sweep to the interior of the excavations where the persons employed in the mines are at work; and all mines governed by this statute shall be provided with artificial means of producing ventilation, such as suction or forcing fans, exhaust steam, furnaces, or other contrivances, of such capacity and power as to produce and maintain an abundant supply of air. All mines generating fire-damp shall be kept free from standing gas, and every working-place shall be carefully examined every morning with a safety-lamp, by a competent person or persons, before any of the workmen are allowed to enter the mine. And at every mine operated by a shaft there shall be provided an approved safety-catch, and a sufficient cover overhead, on all cages used for lowering and hoisting persons, and at the top of every shaft a safety-gate shall be provided, and an adequate brake shall be attached to every drum or machine used in lowering or raising persons in all shafts and slopes.

§ 11. Any person employed in any mine governed by this statute who intentionally or willfully neglects or refuses to securely prop the roof of any working-place under his control, or neglects or refuses to obey any order given by the superintendent of the mine in relation to the security of that part of the bank where he is at work, and whoever knowingly and willfully does any act endangering the lives or health of the persons employed in a mine, or the security of the mine or machinery, shall be liable to a fine of not less than ten dollars nor more than fifty dollars, to be recovered in the county in which the mine is situate.

§ 12. Coal mines in which not more than five persons are employed at one time shall be exempt from the provisions of this law.

§ 13. On account of the emergency hereby declared to exist, in that it is necessary for the employes in mines to receive the protection of the provisions of this law in timely season, this law shall be in force from its approval by the Governor.

Approved February 15, 1893.

### CURATOR OF GEOLOGICAL DEPARTMENT.

EXTRACT from Resolution 61 of General Assembly of 1891-'92-'93, as amended in chapter 78 of Acts of General Assembly of 1894.

1. That the Inspector of Mines, in addition to his duties as such Inspector, shall be Curator of the Cabinet and other property of the Geological Survey or Department, and all the records, documents, collections, instruments, apparatus, books, maps and other property of the Survey are hereby confided to his care and keeping; and, as such Curator, he is hereby required to attend to all correspondence and respond to all requests concerning the mineral resources of the State that come to him in his said capacity, to attend to the distribution of all published maps and reports in his hands intended for distribution, and to perform all the duties usually devolving upon such a Curator, so far as is applicable in this case; and he shall, whenever the General Assembly shall direct and provide therefor, cause to be printed, under his supervision, any or all of the unpublished reports of the Geological Survey that may be in his custody. \* \* \* \* \*

### TO PROVIDE FOR A CHECK-WEIGHMAN.

CHAPTER 1251 of Acts of General Assembly of 1885-'86.

*Be it enacted by the General Assembly of the Commonwealth of Kentucky:* § 1. That when a majority of the miners engaged in digging or mining coal at any coal mine in this State, at which as many as twenty men are employed, request the owner or owners, or operator or operators, of any of said mines to allow

said miners to employ, at their own expense, a person to inspect the scales at said mine, and see that the coal digged and mined by said miners is properly weighed and accounted for, and do and perform such other duties as will insure that said coal is properly weighed and correctly accounted for, said owner or owners, or operator or operators, shall permit such person to be employed by said miners making the request: *Provided*, The person so employed has the reputation of being an honest, trustworthy, discreet and upright man. The appointment, under the provisions of this act of each inspector and assistant weigher, shall be approved by the judge of the county court of the county wherein the same is made.

§ 2. The person appointed and employed by miners to perform the duties set forth in the first section of this act shall, at all times, have free access to the scales at the mines, and the said person so employed by the miners shall not be hindered or prevented from a proper performance of his duties by the person who weighs coal for the operator or operators of any mines, nor any of the agents or employes of said operator or operators. Said person employed by the miners shall, in no way, prevent the weighman or other employes of said operator or operators from performing their duties in a proper manner.

§ 3. Any person violating any of the provisions of this act shall be fined not less than ten nor more than fifty dollars, and each day on which any of the provisions of this act is violated shall constitute a separate offense.

§ 4. This act shall take effect and be in force from and after its passage.

Approved May 18, 1886.

[By oversight this law was omitted from the Kentucky Statutes compiled by Barbour & Carroll, 1894.]

### ROADS FROM MINES.

SECTION 815, Kentucky Statutes, 1894.

§ 815. Any person engaged in operating a mine or stone-quarry within three miles of any navigable stream or railroad may, for the purpose of transporting material to and from such stream or railroad, and such mine or quarry, construct and



operate a line of railroad from such mine or quarry to the most convenient and accessible point on such stream or road, and may, under the general laws, condemn such land as may be necessary, not exceeding fifty feet in width for each track necessarily constructed, and not exceeding two acres of land at such railroad or stream for the purpose of necessary buildings. The owner or operator of such road shall be, so far as they are applicable, governed and controlled by the laws relating to other railroads, and shall have the same rights and privileges granted to corporations owning and operating lines of railroad.

#### **WAGES—PAYMENT IN MONEY—STATUTORY REQUIREMENT—CONSTRUCTION.**

KENTUCKY STATUTES, Chapter 36, Section 1350.—Wage-earners—Penalty for not paying in money.

That any corporation or person or persons having the ownership or control of any factory, mine or workshop in this Commonwealth, who shall violate the provisions of section 244 of the Constitution, reading as follows: "All wage-earners in this State employed in factories, mines, workshops, or by corporations shall be paid for their labor in lawful money," shall be guilty of a misdemeanor, and, on trial and conviction, had in any court of competent jurisdiction, shall be fined not exceeding five hundred dollars for each violation thereof.

KENTUCKY STATUTES, Chapter 38, Section 1386.—Notes of incorporated banks only to be circulated.

It shall not be lawful to make, offer to pay, or pass or offer to pass, any note, bill, order, or other thing passing by delivery, as a circulating medium, in lieu of or as the representative of money, unless it be the note or bill, of not not less than five dollars, of some banking institution legally incorporated in the United States, or currency of the United States. If a note, bill, order, or other such thing, be of the denomination of less than five dollars, it shall be presumed to have been made, paid, or passed, or offered in violation of this section, unless the contrary be shown.



## Construction.

*Case in Point.*—The Avent Beattyville Coal Co. was convicted of not paying its wage-earners in lawful money, and appealed. Reversed.

*In Brief.*—A mining company paid its employes once each month in lawful money for the past month's labor, and at any time during the month, upon their application, issued checks to them, payable in merchandise at the company's store. The amount of checks so issued to each man was deducted from his wages on every pay-day, and he was paid the balance in cash, but no money was paid for outstanding checks. *Held*—That such an arrangement was not in violation of Constitution, section 244, and Stats. of Ky., section 1350, providing that wage-earners shall be paid for their labor in lawful money.

Appeal is from Circuit Court of Lee county.

OPINION by Judge Hazelrigg, delivered December 1, 1894.

For failing to pay one of its wage-earners in lawful money, the appellant was indicted in the Lee Circuit Court, tried, found guilty, and fined \$100. Its chief ground of complaint on this appeal is that the proof of the State does not sustain the findings of the jury, and, therefore, the peremptory instruction asked by it should have been given by the court. The statute alleged to have been violated provides as follows: "That any corporation or person or persons having the ownership or control of any factory, mine or workshop in this Commonwealth, who shall violate the provisions of section 244 of the Constitution, reading as follows: 'All wage-earners in this State employed in factories, mines, workshops or by corporations shall be paid for their labor in lawful money,' shall be guilty of a misdemeanor, and, on trial and conviction, had in any court of competent jurisdiction, shall be fined not exceeding \$500 for each violation thereof." Stats. of Ky., sec. 1350.

The only competent testimony offered by the State was that of Henry Couch, who was the laborer whose wages were not paid in lawful money, according to the allegations of the indictment. He testified that he worked for the defendant in its coal mines in December, 1893, and in January, 1894, under a contract that on a fixed day he was to be paid all the wages due

him for the work done by him during the previous month. That day was the Saturday nearest the 15th of each month. That on that day the defendant always paid him in lawful money all that was due him. That he voluntarily applied to the defendant's clerk, and obtained from him "checks," or round coin-like metal, stamped with the company's name, and having on them the figures 5, 10, and so on up to 100, meaning 5 cents or 10 cents, and also the words "payable in merchandise." That he was never asked to take any of these checks, but applied for them himself, always before his wages were due under his contract, and used them at the company's store, where he got goods, etc., as cheaply as he could at any other store in the town. That these checks were a convenience to him and to the miners. On pay-days the amounts he had gotten in checks were deducted from the amount of his earnings, and he was paid the balance in money. The defendant did not pay money for these checks on pay-day. On this proof it is insisted that no case is made out: (1) Because no time is fixed by the witness when the checks were delivered to him. As the statute was not in force until October 3, 1893, it is urged that a failure to pay the witness in lawful money, or deliver him checks for his wages, prior to that date, was not in violation of law. (2) Because, though indicted as a corporation, there was no proof conducing to show that the defendant was such. If those violating the statute were not incorporated, they were liable as individuals, and not as the "Avent Beattyville Coal Co." That the omission to prove these facts is fatal to the prosecution seems clear enough, but, even with the omitted proof in, the peremptory instruction should have been given.

The legislation in question is wholly new to our State. If its letter is to control, then the delivery of these checks as payments on the wages earned prior to the regular pay-day of the company is in violation of the law. A miner works a week, and has earned a certain sum. His wages are not due, but he is in need of provisions for his family. He applies to the company for relief, and it delivers to him in part payment of his wages, not lawful money, but orders or checks on its store for the provisions he needs. This is, confessedly, a great convenience to the workman, and we can not believe that it is in violation of a

reasonable construction of the law. The object of the legislation was to protect the weak against the strong, and the wage-earner is regarded as liable to imposition and oppression at the hands of his employer. The statute gives him the right to demand his wages in money whenever it is due him, and any device resorted to by the employer, or any contract exacted of the employe, requiring the acceptance of other than lawful money for labor, is prohibited. If the time between pay-days were unreasonably extended, or if, before employing laboreers, agreements were exacted of them that they were to take even a part of their earnings in merchandise, the offense against the law would be complete. It may be claimed that this is an abridgement of the rights of those laboring under no disability to contract for themselves, and the legislation is arbitrary and opposed to the spirit, at least, of our Bill of Rights. But so may the usurer complain of the laws denying him the right to enforce agreements to pay more than a specified rate of interest for the use of money. The object in view is the same in all such legislation—to prevent oppression and overreaching. The law says, however, that the wage-earner shall be paid for his labor in lawful money, but when? It does not say every day or every week, hence we conclude that contracts fixing pay-days at reasonable periods may be made, on which, and not before, the laborer may demand his pay in money. If such periods be fixed even by the consent of the laborer, so that the effect is to force him, by reason of his necessities, to apply for and accept his pay in checks for merchandise, the contract is in violation of law, and the enforced delivery and payments are unlawful. But if fixed at reasonable periods, and the necessities of the workman demand it, he may, of his own choice, obtain relief of his employer through the use of checks for merchandise without subjecting the latter to the penalties denounced in the statute. Any other construction would in the end disastrously affect the wage-earner, for whose benefit the law was enacted. There has been no suggestion of oppression in the argument, and none in the testimony, growing out of the regulation of the pay-days in this case, and we have assumed it to be reasonable.

We think the proof fails to show any violation of the Constitution or the statute, and the judgment is reversed, with directions to dismiss the indictment.

## LIENS OF EMPLOYES.

EXTRACT from Chapter 79, Article III, Kentucky Statutes, 1894.

2487. *Lien of employes and material men on property assigned for benefit of creditors.* When the property or effects of any mine, railroad, turnpike, canal, or other public improvement company, or of any owner or operator of any rolling-mill, foundry or other manufacturing establishment, whether incorporated or not, shall be assigned for the benefit of creditors, shall come into the hands of any executor, administrator, commissioner, receiver of a court, trustee or assignee for the benefit of creditors, or shall in any wise come to be distributed among creditors, whether by operation of law or by the act of such company, owner or operator, the employes of such company, owner or operator in such business, and the persons who shall have furnished materials or supplies for the carrying on of such business, shall have a lien upon so much of such property and effects as may have been involved in such business, and all the accessories connected therewith, including the interest of such company, owner or operator in the real estate used in carrying on such business.

2488. *Lien superior to other encumbrance—who deemed employes.* The said lien shall be superior to the lien of any mortgage or other encumbrance theretofore or thereafter created, and shall be for the whole amount due such employes as such, or due for such materials or supplies; but no president or other chief officer, nor any director or stockholder of any such company, shall be deemed an employe within the meaning of this article.

2489. *Distribution of earnings between lien-holders when property operated.* When the trustee or other person having the administration or distribution of such property or effects shall continue the operation of the business, it shall be his duty, at the end of each calendar month, after payment of current expenses, and after payment of any debt due the United States or the State of Kentucky, to distribute the remaining money in his hands among the persons to whom a lien is hereby given *pro rata*, except twenty per cent. thereof, which he may, if necessary, reserve for contingent expenses.



2490. *Lien—if business suspended or property levied on.* When any such company, owner or operator shall suspend, sell or transfer such business, or when the property or effects engaged in such business shall be taken in attachment or execution, so that the business shall be stopped or suspended, the said lien shall attach as fully as is provided in section first of this article, and in such case may be enforced by proceedings in equity.

2491. *Lien-holders may unite as plaintiffs—limitation of action.* The plaintiff in such proceedings may unite with him as co-plaintiffs any number of similar lien-holders who consent thereto, and shall make all lien-holders and encumbrancers parties; but when the parties are numerous, any one or more may be designated by the court to prosecute or defend for the same class. Suit must be filed to enforce the lien given by this article within sixty days from the date of the assignment, or from the date when the property shall go into the hands of a receiver or trustee, or from the date when the business shall be stopped or suspended, or the property sold; or the claims for which a lien is asserted must be filed in said time with the person authorized to receive and report claims.





Legislative Document No. 10.

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REPORT

—OF THE—

TREASURER OF KENTUCKY,

—FROM—

**JULY 1, 1893, TO JUNE 30, 1895.**

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**PROPERTY OF THE STATE OF KENTUCKY.**

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FRANKFORT, KY.:

PRINTED BY THE CAPITAL PRINTING Co.

1895.



# REPORT

—OF THE—

## TREASURER OF THE STATE OF KENTUCKY

FROM JULY 1, 1893, TO JUNE 30, 1895.

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OFFICE OF STATE TREASURER,  
FRANKFORT, KY., October 10, 1895. }

*To the Honorable Senate and House of Representatives :*

GENTLEMEN : In obedience to the law governing my duties, I have the honor to submit to you the reports of the receipts and disbursements of the Treasury for the fiscal years ending June 30, 1894, and June 30, 1895, which exhibit the receipts and expenditures of each year on account of every department of the public service ; also the total receipts and disbursements for each month, and the receipts and disbursements of the three distinct and separate funds of the Treasury.

The depositories for the public moneys are : The Farmers' Bank of Kentucky, Frankfort, Kentucky ; the Bank of Commerce, Louisville, and the First National Bank at Mayfield, Kentucky, and the agreed rate of interest on daily balances is two and a half per cent. per annum.

Respectfully, etc.,

H. S. HALE, *Treasurer.*





# REVENUE DEPARTMENT.

## GENERAL BALANCE SHEET.

To Amounts Received from July 1, 1893, to June 30, 1894, Inclusive:

DEBITS.		
To Balance . . . . .		\$179,481 80
Agricultural and Mechanical College . . . . .	\$16,245 00	
Branch Penitentiary . . . . .	11,039 94	
Clerks . . . . .	480,818 28	
Fines and Forfeitures . . . . .	129,725 71	
Insurance Department . . . . .	19,780 58	
Interest on State Deposits . . . . .	1,460 93	
Inspector of Mines . . . . .	5 00	
Military Fund . . . . .	55 32	
Money Refunded . . . . .	25,193 44	
Miscellaneous Receipts . . . . .	23,023 27	
Penitentiary, Proper . . . . .	44,069 94	
Public Library . . . . .	3,000 00	
Real Estate . . . . .	584 00	
Revenue Agents . . . . .	7,432 06	
State Normal School . . . . .	2,755 00	
Secretary of State . . . . .	4,577 50	
Sheriffs' Revenue, 1888 . . . . .	1,795 55	
Sheriffs' Revenue, 1889 . . . . .	52 80	
Sheriffs' Revenue, 1891 . . . . .	763 42	
Sheriffs' Revenue, 1892 . . . . .	1,802 96	
Sheriffs' Revenue, 1893 . . . . .	2,314,819 53	
Sheriffs' Revenue, 1894 . . . . .	13,313 00	
Tate Defalcation Fund . . . . .	10,558 05	
Tax on Distilled Spirits . . . . .	41,962 11	
Tax on Foreign Insurance Companies . . . . .	113,620 33	
Tax on Home Insurance Companies . . . . .	5,841 65	
Tax on Miscellaneous Corporations . . . . .	54,682 93	
Tax on National Banks . . . . .	85,876 78	
Tax on Organization of Corporations . . . . .	5,924 22	
Tax on Railroads . . . . .	225,675 91	
Tax on State Banks . . . . .	140,998 88	
Tax on Turnpike Roads . . . . .	83 37	
Turnpike Dividends . . . . .	20,140 77	
Trustee Jury Fund . . . . .	18,954 29	
Western Lunatic Asylum . . . . .	1,675 45	
School Fund Proper . . . . .	12,403 98	
Sinking Fund Proper . . . . .		
Total Receipts . . . . .		3,840,711 95
		<u>\$4,020,193 75</u>

## REVENUE DEPARTMENT.

## GENERAL BALANCE SHEET.

By Warrants Paid Under the Following Heads from July 1, 1893, to June  
30, 1894, Inclusive :

## CREDITS.

By Attorney-General's Fees . . . . .	\$8,994 57
Agricultural and Mechanical College . . . . .	46,876 17
Agricultural, Horticultural and Statistical Bureau . . . . .	6,841 44
Active Militia . . . . .	800 75
Assessors . . . . .	86,750 75
Branch Penitentiary . . . . .	19,266 77
Branch Penitentiary Appropriation . . . . .	4,000 00
Blind Asylum . . . . .	12,610 00
Court of Appeals . . . . .	3,505 27
Cost of Suits . . . . .	3,381 41
Central Lunatic Asylum . . . . .	107,562 76
County Attorneys . . . . .	2,038 67
Conveyance of Lunatics . . . . .	11,397 47
Commissions on Fines and Forfeitures . . . . .	92,169 42
Criminal Prosecutions . . . . .	204,719 96
Clerks' Services . . . . .	22,959 66
Clerks' Paid Trustee . . . . .	98,325 30
Directors Kentucky Penitentiary . . . . .	1,050 00
Distribution of Public Books . . . . .	596 30
Deaf and Dumb Asylum . . . . .	34,020 00
Executive Mansion . . . . .	3,102 41
Expresses . . . . .	4,368 95
Equalization Board . . . . .	5,001 60
Eastern Lunatic Asylum . . . . .	73,018 11
Feeble-minded Institute . . . . .	19,270 78
Geological Survey . . . . .	72 20
Idiots . . . . .	60,919 95
Insurance Department . . . . .	13,077 54
Jury Commissioners . . . . .	1,090 00
Law Library . . . . .	875 87
Legislature, Session 1891-1892 . . . . .	33,982 71
Legislature, Session 1894 . . . . .	49,644 39

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Amount carried forward . . . . . \$1,032,291 18

Amount brought forward . . . . .	\$1,032,291 18	
Lunatics . . . . .	7,935 85	
Military Fund . . . . .	9,653 26	
Money Refunded . . . . .	4,328 71	
Penitentiary Proper . . . . .	79,118 34	
Penitentiary Appropriation . . . . .	137,414 60	
Public Buildings . . . . .	1,660 30	
Public Grounds . . . . .	1,102 70	
Public Offices . . . . .	16,152 92	
Public Library . . . . .	14 50	
Paper for Public Printing . . . . .	4,792 70	
Public Printing and Binding . . . . .	35,247 89	
Record-books . . . . .	30,963 38	
Revenue Supervisors . . . . .	22,442 00	
Rewards . . . . .	3,700 00	
Revenue Agents . . . . .	3,064 90	
Sheriffs' Paid Trustee . . . . .	31,434 56	
Sheriffs' Revenue, 1887 . . . . .	109 44	
Sheriffs' Revenue, 1889 . . . . .	3,680 81	
Sheriffs' Revenue, 1890 . . . . .	502 07	
Sheriffs' Revenue, 1891 . . . . .	453 46	
Sheriffs' Revenue, 1892 . . . . .	1,917 74	
Sheriffs' Revenue, 1893 . . . . .	26,221 36	
Stationery for Public Use . . . . .	211 55	
State Arsenal . . . . .	619 40	
State Library . . . . .	25 00	
State Normal School . . . . .	7,755 00	
State Inspector . . . . .	291 30	
Salaries . . . . .	211,802 18	
Secretary of State . . . . .	3,269 88	
Superior Court . . . . .	1,400 35	
Trustee Jury Fund . . . . .	164,404 72	
Western Lunatic Asylum . . . . .	60,084 21	
Sinking Fund . . . . .	20,440 00	
School Fund . . . . .	2,062,121 25	
Total Expenditures . . . . .	\$3,986,627 51	
Balance in Treasury . . . . .	33,566 24	

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\$4,020,193 75

## REVENUE DEPARTMENT.

## GENERAL BALANCE SHEET.

To Amounts Received from July 1, 1894, to June 30, 1895, Inclusive:

DEBITS.		
To Balance. . . . .		\$33,566 24
Agricultural and Mechanical College . . . . .	\$39,100 00	
Agricultural, Horticultural and Statistical Bureau		
Appropriation . . . . .	14 10	
Clerks . . . . .	440,639 84	
Fines and Forfeitures . . . . .	120,499 62	
Insurance Department. . . . .	18,603 12	
Jefferson County Fees . . . . .	19,386 70	
Military Fund . . . . .	30 85	
Money Refunded . . . . .	6,036 98	
Miscellaneous Receipts. . . . .	16,643 49	
Penitentiary . . . . .	150,150 78	
Penitentiary Warehouse Insurance . . . . .	4,901 23	
Public Library . . . . .	2,000 00	
Real Estate. . . . .	201 70	
Revenue Agents . . . . .	45,488 76	
State Normal School . . . . .	2,900 00	
Secretary of State. . . . .	3,550 00	
Sheriffs' Revenue, 1890 . . . . .	259 08	
Sheriffs' Revenue, 1891 . . . . .	359 60	
Sheriffs' Revenue, 1892 . . . . .	6 29	
Sheriffs' Revenue, 1893 . . . . .	375 59	
Sheriffs' Revenue, 1894 . . . . .	2,209,636 60	
Sheriffs' Revenue, 1895 . . . . .	27,700 37	
Tax on Distilled Spirits . . . . .	34,071 14	
Tax on Foreign Insurance Companies. . . . .	111,550 31	
Tax on Home Insurance Companies. . . . .	758 67	
Tax on Miscellaneous Corporations . . . . .	16,114 48	
Tax on National Banks . . . . .	62,292 18	
Tax on Organization of Corporations . . . . .	8,598 42	
Tax on Railroads . . . . .	225,830 09	
Tax on State Banks . . . . .	87,382 07	
Tate Dalcation Fund. . . . .	14,620 00	
Trustee Jury Fund . . . . .	3,056 61	
Turnpike Dividends. . . . .	18,979 88	
School Fund . . . . .	9,424 87	
Sinking Fund. . . . .	1,432 99	
Total Receipts . . . . .		3,702,576 41
Overdraft. . . . .		41,968 17
		<u>\$3,778,110 82</u>

**Receipts and Disbursements of State Funds by H. S. Hale, Treasurer, from  
July 1, 1893, to June 30, 1895, Inclusive.**

**RECEIPTS.**

Amount in Treasury June 30, 1893 . . . . .	\$179,481 80
July . . . . .	326,107 24
August . . . . .	190,810 41
September . . . . .	288,819 21
October . . . . .	647,073 87
November . . . . .	1,435,581 19
December . . . . .	223,825 30
January, 1894 . . . . .	83,153 86
February . . . . .	259,839 07
March . . . . .	71,636 29
April . . . . .	73,126 41
May . . . . .	88,931 35
June . . . . .	151,807 75
Total first year . . . . .	<u><u>\$4,020,093 75</u></u>

**DISBURSEMENTS.**

July . . . . .	\$248,707 10
August . . . . .	94,901 99
September . . . . .	118,731 65
October . . . . .	1,051,177 27
November . . . . .	617,691 44
December . . . . .	606,123 91
January, 1894 . . . . .	640,149 84
February . . . . .	271,823 25
March . . . . .	65,275 96
April . . . . .	50,298 89
May . . . . .	109,627 98
June . . . . .	112,118 23
Balance June 30, 1894 . . . . .	33,566 24
Total first year . . . . .	<u><u>\$4,020,193 75</u></u>



**RECEIPTS.**

Amount in Treasury June 30, 1894 . . . . .	\$33,566 24
July, 1894 . . . . .	365,916 84
August . . . . .	219,375 20
September . . . . .	303,078 03
October . . . . .	266,286 14
November . . . . .	720,748 50
December . . . . .	979,204 84
January, 1895 . . . . .	876,718 18
February . . . . .	73,288 31
March . . . . .	75,158 14
April . . . . .	125,002 48
May . . . . .	97,665 58
June . . . . .	99,834 17
Overdraft June 20, 1895 . . . . .	41,968 17
Total second fiscal year . . . . .	<u>\$3,778,110 82</u>

**DISBURSEMENTS.**

July . . . . .	\$398,194 65
August . . . . .	96,246 91
September . . . . .	52,042 30
October . . . . .	609,373 37
November . . . . .	629,778 70
December . . . . .	1,034,539 74
January, 1895 . . . . .	348,607 36
February . . . . .	81,922 78
March . . . . .	68,237 15
April . . . . .	185,129 64
May . . . . .	124,779 54
June . . . . .	149,258 68
Total second fiscal year . . . . .	<u>\$3,778,110 82</u>

## REVENUE DEPARTMENT.

## GENERAL BALANCE SHEET.

By Warrants Paid Under the Following Heads from July 1, 1894, to June  
30, 1895, Inclusive:

## CREDITS.

By Agricultural and Mechanical College . . . . .	\$51,973 03
Agricultural, Horticultural and Statistical Bureau	
Appropriation . . . . .	9,974 59
Attorney-General's Fees . . . . .	5,539 95
Assessors . . . . .	47,255 12
Appropriations, Session 1894 . . . . .	13,030 40
Branch Penitentiary . . . . .	10,061 99
Branch Penitentiary Appropriation . . . . .	500 00
Blind Asylum . . . . .	23,590 00
Court of Appeals . . . . .	2,015 80
Cost of Suits . . . . .	2,519 35
Central Lunatic Asylum . . . . .	73,758 17
County Attorneys . . . . .	3,174 74
Conveyance Lunatics . . . . .	7,907 44
Commission on Fines and Forfeitures . . . . .	99,536 60
Criminal Prosecutions . . . . .	247,791 62
Clerks' Services . . . . .	32,802 99
Clerks Paid Trustees . . . . .	86,119 91
Directors of Kentucky Penitentiary . . . . .	800 00
Distribution of Public Books . . . . .	968 50
Deaf and Dumb Asylum . . . . .	16,605 00
Executive Mansion . . . . .	1,624 30
Expresses . . . . .	2,840 08
Equalization Board . . . . .	3,187 61
Eastern Lunatic Asylum . . . . .	60,123 85
Frankfort Cemetery . . . . .	250 00
Feeble-Minded Institute . . . . .	13,278 37
Geological Survey . . . . .	130 70
Idiots . . . . .	88,019 07
Insurance Department . . . . .	13,174 86
Jefferson County Fees . . . . .	17,313 90
Jury Commissioners . . . . .	1,104 00
Amount carried forward . . . . .	\$936,971 94

Amount brought forward . . . . .	\$986,971 94
Lunatics . . . . .	9,699 63
Law Library . . . . .	567 97
Legislature '91 and '92. . . . .	3,449 00
Legislature '94 . . . . .	24,871 46
Money Refunded . . . . .	790 35
Military Fund . . . . .	11,130 25
Public Buildings . . . . .	651 05
Public Grounds . . . . .	527 45
Public Offices. . . . .	15,240 55
Paper, Public Printing . . . . .	9,395 65
Public Books . . . . .	47 45
Public Printing and Binding. . . . .	14,656 32
Public Library . . . . .	205 00
Penitentiary Proper . . . . .	88,788 32
Penitentiary Appropriation . . . . .	121,105 17
Penitentiary Warehouse . . . . .	4,596 58
Record-books . . . . .	14,619 31
Revenue Supervisors . . . . .	20,934 00
Revenue Agents . . . . .	9,761 29
Rewards . . . . .	4,450 00
Sheriffs Paid Trustee . . . . .	61,304 50
State Arsenal. . . . .	442 16
State Library . . . . .	24 00
State Board of Health. . . . .	2,500 00
State Normal School . . . . .	5,900 00
Superior Court . . . . .	556 06
State Contest Board . . . . .	172 32
Salaries . . . . .	104,858 33
Secretary of State. . . . .	3,309 65
Sheriffs' Revenue, 1892. . . . .	1,035 01
Sheriffs' Revenue, 1893. . . . .	3,425 88
Sheriffs' Revenue, 1894. . . . .	12,659 59
Trustee Jury Fund . . . . .	146,246 06
Western Lunatic Asylum . . . . .	48,265 79
School Fund . . . . .	2,028,608 54
Sinking Fund. . . . .	66,344 19
<hr/>	
Total Expenditures . . . . .	\$3,778,110 82
<hr/>	
	<u>\$3,778,110 82</u>

**SINKING FUND, 1893-1894.**

Amount on hand July 1, 1893 . . . . .	\$161,068 91
Receipts and Transfers July, 1893 . . . . .	33,561 50
Receipts and Transfers August, 1893 . . . . .	21,381 43
Receipts and Transfers September, 1893 . . . . .	32,943 45
Receipts and Transfers December, 1893 . . . . .	22,328 45
Receipts and Transfers January, 1894 . . . . .	7,216 96
Receipts and Transfers February, 1894 . . . . .	28,807 44
Receipts and Transfers March, 1894 . . . . .	5,583 33
Receipts and Transfers April, 1894 . . . . .	5,763 26
Receipts and Transfers May, 1894 . . . . .	7 847 60
Receipts and Transfers June, 1894 . . . . .	14,676 93

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\$341,179 26

Expenditures July, 1893 . . . . .	\$74,597 90
Expenditures December, 1893 . . . . .	10,000 00
Expenditures January, 1894 . . . . .	74,597 90
Balance to Credit of said Fund June 30, 1894 . . . . .	181,983 46

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\$341,179 26

**SCHOOL FUND, 1893-1894.**

Balance on hand July 1, 1893 . . . . .	\$314,777 42
Receipts and Transfers July, 1893 . . . . .	169,128 62
Receipts and Transfers August, 1893 . . . . .	44,705 21
Receipts and Transfers September, 1893 . . . . .	126,153 75
Receipts and Transfers October, 1893 . . . . .	304,681 20
Receipts and Transfers November, 1893 . . . . .	713,676 77
Receipts and Transfers December, 1893 . . . . .	312,450 70
Receipts and Transfers January, 1894 . . . . .	84,383 52
Receipts and Transfers February, 1894 . . . . .	111,420 12
Receipts and Transfers March, 1894 . . . . .	3,029 27
Receipts and Transfers April, 1894 . . . . .	4,524 73
Receipts and Transfers May, 1894 . . . . .	8,125 37
Receipts and Transfers June, 1894 . . . . .	42,796 95

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\$2,239,853 63

**SCHOOL FUND, 1893-1894.—Continued.**

Expenditures July, 1893 . . . . .	\$722 90
Expenditures August, 1893 . . . . .	605 17
Expenditures September, 1893 . . . . .	804 90
Expenditures October, 1893 . . . . .	815,769 75
Expenditures November, 1893 . . . . .	416,634 42
Expenditures December, 1893 . . . . .	410,198 73
Expenditures January, 1894 . . . . .	413,920 41
Expenditures February, 1894 . . . . .	540 18
Expenditures March, 1894 . . . . .	572 85
Expenditures April, 1894 . . . . .	560 84
Expenditures May, 1894 . . . . .	808 69
Expenditures June, 1894 . . . . .	983 01
Balance to Credit of said Fund June 30, 1894 . . . . .	177,732 38
	<u>\$2,239,853 63</u>

**GENERAL EXPENDITURE FUND, 1893-1894.**

Receipts less Transfers July, 1893 . . . . .	\$192,795 02
Receipts less Transfers August, 1893 . . . . .	124,723 77
Receipts less Transfers September, 1893 . . . . .	129,722 01
Receipts less Transfers October, 1893 . . . . .	342,392 67
Receipts less Transfers November and December, 1893, . . . . .	610,950 57
Receipts less Transfers January, 1894 . . . . .	60,931 28
Receipts less Transfers February, 1894 . . . . .	119,611 51
Receipts less Transfers March, 1894 . . . . .	63,023 69
Receipts less Transfers April, 1894 . . . . .	62,838 42
Receipts less Transfers May, 1894 . . . . .	72,958 38
Receipts less Transfers June, 1894 . . . . .	94,333 87
Deficit June 30, 1894 . . . . .	326,149 60
	<u>\$2,200,430 79</u>

By Deficit July 1, 1893 . . . . .	\$296,864 53
Expenditures July, 1893 . . . . .	242,764 20
Expenditures August, 1893 . . . . .	94,296 82
Expenditures September, 1893 . . . . .	117,926 75
Expenditures October, 1893 . . . . .	235,407 52
Expenditures November, 1893 . . . . .	201,057 02
Expenditures December, 1893 . . . . .	185,925 18
Expenditures January, 1894 . . . . .	221,009 43
Expenditures February, 1894 . . . . .	271,283 07
Expenditures March, 1894 . . . . .	64,703 11
Expenditures April, 1894 . . . . .	49,738 05
Expenditures May, 1894 . . . . .	108,819 89
Expenditures June, 1894 . . . . .	111,135 22

\$2,200,430 79



**SINKING FUND, 1894-1895.**

Amount on hand July 1, 1894 . . . . .	\$181,983 46
Receipts and Transfers July, 1894 . . . . .	34,735 48
Receipts and Transfers August, 1894 . . . . .	23,517 94
Receipts and Transfers September, 1894 . . . . .	34,564 32
Receipts and Transfers January, 1895 . . . . .	812 00
	<hr/>
	\$275,613 20
	<hr/>
Expenditures July, 1894 . . . . .	\$114,597 90
Expenditures August, 1894 . . . . .	1,124 19
Expenditures December, 1894 . . . . .	10,000 00
Expenditures May, 1895 . . . . .	10,000 00
Balance June 30, 1895 . . . . .	139,891 11
	<hr/>
	\$275,613 20
	<hr/>

**SCHOOL FUND, 1894-1895.**

Amount on hand July 1, 1894 . . . . .	\$177,732 38
Receipts and Transfers July, 1894 . . . . .	198,573 07
Receipts and Transfers August, 1894 . . . . .	47,389 43
Receipts and Transfers September, 1894 . . . . .	134,161 85
Receipts and Transfers October, 1894 . . . . .	95,837 34
Receipts and Transfers November, 1894 . . . . .	574,641 75
Receipts and Transfers December, 1894 . . . . .	557,291 29
Receipts and Transfers January, 1895 . . . . .	140,605 04
Receipts and Transfers February, 1895 . . . . .	21,729 90
Receipts and Transfers March, 1895 . . . . .	22,532 11
Receipts and Transfers April, 1895 . . . . .	33,900 90
Receipts and Transfers May, 1895 . . . . .	32,908 01
Receipts and Transfers June, 1895 . . . . .	35,366 23
	<hr/>
	\$2,072 669 30
	<hr/>
Expenditures July, 1894 . . . . .	\$1,152 06
Expenditures August, 1894 . . . . .	742 04
Expenditures September, 1894 . . . . .	8,408 34
Expenditures October, 1894 . . . . .	533,265 77
Expenditures November, 1894 . . . . .	273,3 8 76
Expenditures December, 1894 . . . . .	802,216 30
Expenditures January, 1895 . . . . .	200,522 00
Expenditures February, 1895 . . . . .	10 77
Expenditures March 1895 . . . . .	658 36
Expenditures April, 1895 . . . . .	106,251 99
Expenditures May, 1895 . . . . .	773 82
Expenditures June, 1895 . . . . .	101,288 33
Balance June 30, 1895 . . . . .	44,060 76
	<hr/>
	\$2,072,669 30
	<hr/>

**GENERAL EXPENDITURE FUND, 1894-1895.**

Receipts less Transfers July, 1894. . . . .	\$201,986 19
Receipts less Transfers August, 1894 . . . . .	148,467 83
Receipts less Transfers September, 1894 . . . . .	134,351 86
Receipts less Transfers October, 1894 . . . . .	170,448 80
Receipts less Transfers November, 1894 . . . . .	146,106 75
Receipts less Transfers December, 1894 . . . . .	421,913 55
Receipts less Transfers January, 1895 . . . . .	235,301 14
Receipts less Transfers February, 1895. . . . .	51,558 41
Receipts less Transfers March, 1895 . . . . .	52,626 03
Receipts less Transfers April, 1895 . . . . .	91,101 58
Receipts less Transfers May, 1895 . . . . .	65,057 57
Receipts less Transfers June, 1895. . . . .	64,467 94
To deficit June 30, 1895 . . . . .	225,920 04

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\$2,009,307 69

Credit by Deficit July 1, 1891 . . . . .	326,149 60
Expenditures July, 1894 . . . . .	351,822 59
Expenditures August, 1894. . . . .	94,380 68
Expenditures September, 1894 . . . . .	43,633 96
Expenditures October, 1894 . . . . .	76,107 60
Expenditures November, 1894 . . . . .	356,459 94
Expenditures December, 1894 . . . . .	222,323 44
Expenditures January, 1895 . . . . .	148,085 36
Expenditures February, 1895. . . . .	81,912 01
Expenditures March, 1895 . . . . .	67,578 79
Expenditures April, 1895 . . . . .	78,877 65
Expenditures May, 1895. . . . .	114,005 72
Expenditures June, 1895. . . . .	47,970 35

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\$2,009,307 69

Legislative Document No. 11.

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THIRTY-SIXTH BIENNIAL, OR SEVENTY-FIRST AND SEVENTY-SECOND

ANNUAL REPORTS

—OF THE—

KENTUCKY INSTITUTION

—FOR THE—

EDUCATION OF DEAF-MUTES

AT DANVILLE,

TO THE GOVERNOR OF KENTUCKY,

FOR THE TWO YEARS ENDING OCT. 31, 1895.

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PROPERTY OF THE STATE OF KENTUCKY.

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FRANKFORT, KY.:

PRINTED BY THE CAPITAL PRINTING CO.

1895.



KENTUCKY INSTITUTION FOR DEAF-MUTES, DANVILLE.



COLORED DEPARTMENT.



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MISS BELLE LUNSFORD,	MISS EMMA NICHOLS,
MISS LETTIE GREEN.	

**Oral Teachers.**

MISS STELLA P. YOST,                      MISS HERMINE M. HAUPT,  
MISS NELLIE LYLE,                      MISS PATTIE GENTRY,  
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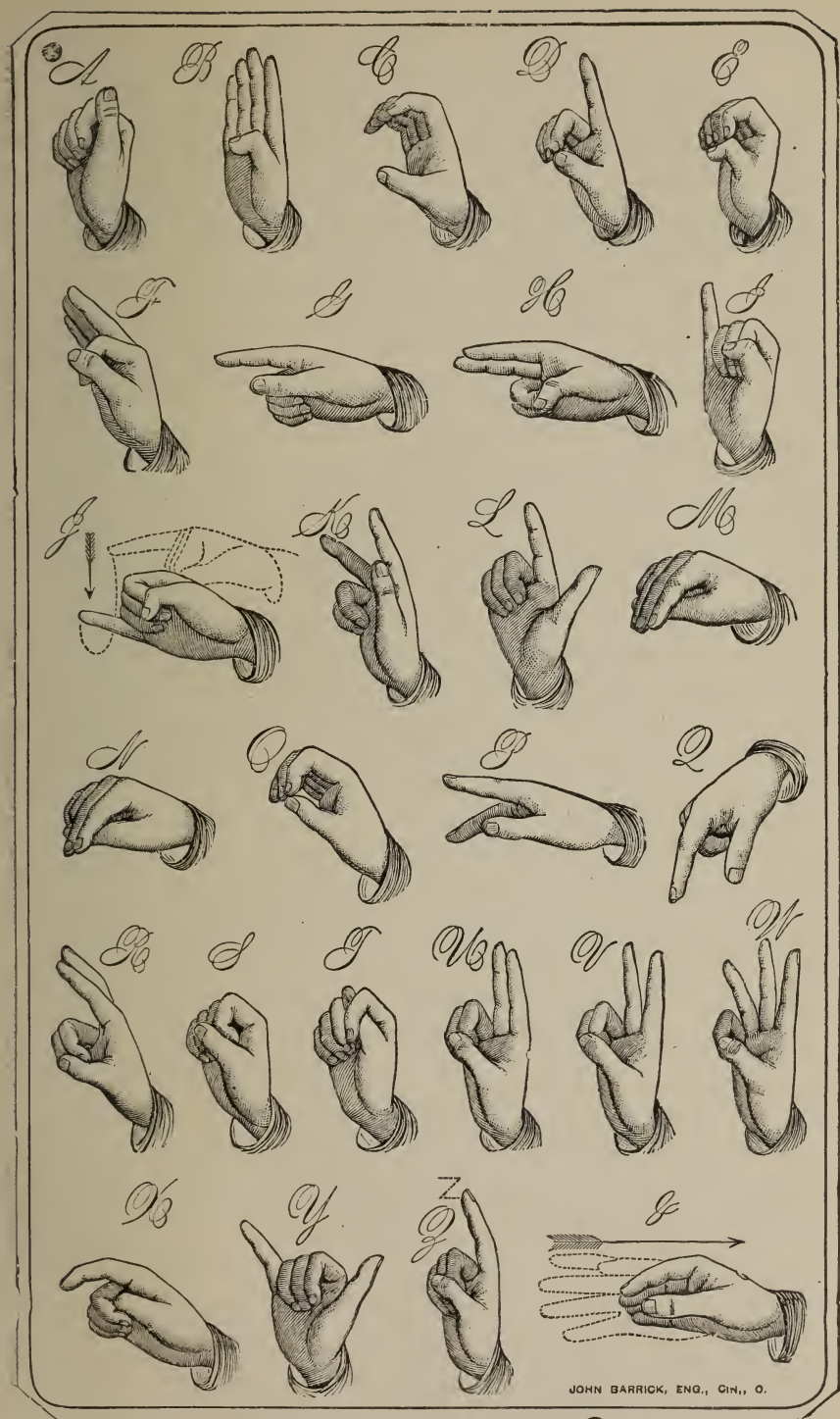
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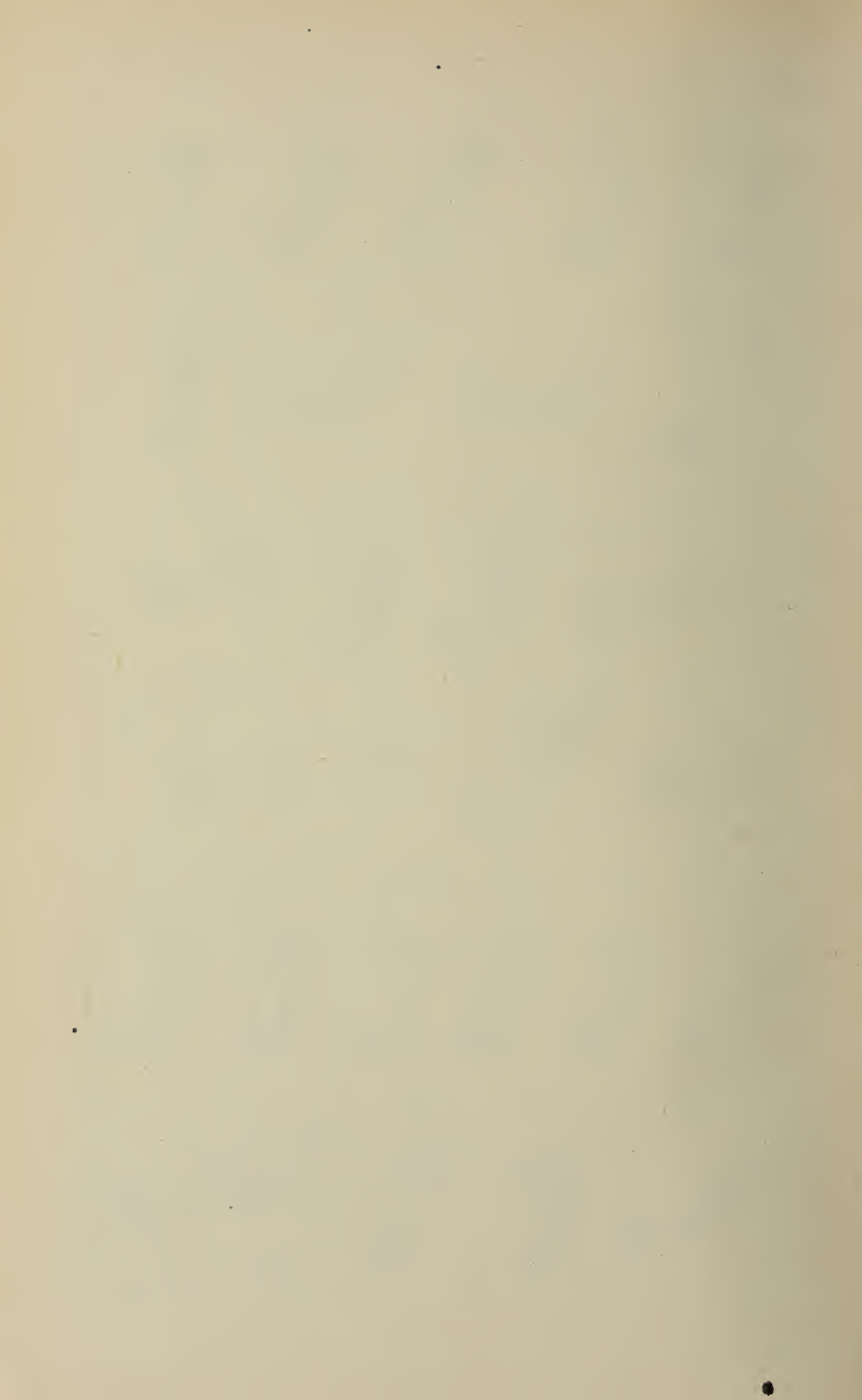
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# REPORT OF BOARD OF COMMISSIONERS.

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*To His Excellency, JOHN YOUNG BROWN,*

*Governor of Kentucky:*

DEAR SIR: Herewith we most respectfully submit the thirty-sixth biennial report of the Kentucky Institution for the Education of Deaf-Mutes, embracing the two years ending October 31st, 1895, the seventy-first and seventy-second years since its establishment.

These two years have brought to us a large increase in attendance, and the record shows an aggregate enrollment for the two years of 363, making the whole number of pupils who have matriculated since the establishment of the school 1,303; and 300 of these have been enrolled this present session.

There has been but one change in the Board of Commissioners since our last report. The hand of death came into our fold, and removed from our number John W. Proctor, the President of the Board, and for years one of its most active and efficient members, and one who took as lively interest in the welfare of the School as any who ever occupied the position. The vacancy thus made was filled by the appointment of W. C. Young, of Danville.

We were also called upon in May, 1894, to part with our beloved and trusted Superintendent, W. K. Argo, whose declining health made it imperative that he make a change of climate. It was with the keenest regret that we saw him leave the School. He had been since 1884 well nigh every thing the Institution needed, as its head. With perfect familiarity with the sign language, special tact, unusual firmness, great knowledge of the deaf, strong executive ability, and a staunch Christian character, he was peculiarly adapted to fill the position to which he was called. Since August 9th, 1894, the posi-

tion has been filled by John E. Ray, who began his work with the deaf in the State of North Carolina in 1875, and was Superintendent of the State School for the Deaf and the Blind of Colorado seven years immediately preceeding his election. The confidence which the Board felt in him was attested in its giving him a unanims vote upon the first ballot to succeed Mr. Argo.

The unusually large increase in attendance has made it necessary to increase our teaching force, the number actually present at this writing being exactly one hundred more than at this time two years ago. The following is the faculty as now engaged :

### WHITE DEPARTMENT.

#### LITERARY.

One Principal, with board . . . . .	\$1,500 00
One Teacher, without board . . . . .	1,200 00
Three Teachers, without board, at \$1,000 . . . . .	3,000 00
One Teacher, with board. . . . .	900 00
One Teacher, with board. . . . .	700 00
Six Teachers, with board, at \$500. . . . .	3,000 00
Two Teachers, with board, at \$400 . . . . .	800 00
One Teacher, with board. . . . .	300 00
Two Teachers, without board, at \$200. . . . .	400 00
One Teacher, with board. . . . .	185 00

#### INDUSTRIAL.

One Foreman carpenter shop, without board. . . . .	750 00
One Foreman shoe-shop, without board . . . . .	660 00
One Foreman printing office, without board . . . . .	400 00
One Foreman garden, without board . . . . .	480 00
One Seamstress, with board . . . . .	200 00

### COLORED DEPARTMENT.

One Head Teacher, with board . . . . .	650 00
One Teacher, without board . . . . .	750 00
Total paid teachers and instructors alone . . . . .	<u>\$15,875 00</u>

It will be seen from these figures that while our attendance has increased more than fifty per cent., the teaching force has been enlarged only about thirty per cent., and the actual addition to the salary list has been only \$1,155.00.

The special appropriations made to pay our teachers is only \$13,500. A glance will reveal the fact that we have had to draw upon our current expense fund for \$2,375 to pay our instructors. May we not hope that the next General Assembly of the State will make good this deficit, and provide for the necessary amount in the future.

The last Legislature made a special appropriation for the erection of a hospital and a barn, for new steam boilers, fire escapes, repairing the sewer and the purchase of the Green property, which is located upon the same block with our other buildings, in all amounting to \$16,586.70. Presuming that this money would be tangible when needed and confronted by the urgent necessity of these improvements, your Board proceeded with the same. But when we drew upon the State Treasurer for the funds with which to settle our bills, we were told that the money was not forthcoming. As a consequence we have been compelled to borrow the money to meet these obligations, and have paid interest upon the same, which it seems but right should be refunded to us.

We wish to heartily endorse and strongly emphasize what our Superintendent has to say with reference to "*pressing needs*." If our School is to keep up with its present standard of usefulness—not to speak of going forward—there must be some increase in our revenue, as well as provision made for buildings. But little has been done in this line for the past fifteen years, whereas the attendance is nearly three times as large as it was at that time.

For detailed statements of the operations of the school, you are respectfully referred to the reports of the Superintendent, Physician and Treasurer hereto attached.

Most respectfully submitted,

BOYLE O. RODES,

*Prest. Board Commissioners.*

S. V. ROWLAND, *Secretary.*

# PRINCIPAL'S REPORT.

*To the Board of Commissioners of the Kentucky School for the Deaf:*

GENTLEMEN: I take great pleasure in handing you herewith a detailed statement of the operations of this School for the past two years, with a deep sense of gratitude to Almighty God for the success which has attended our efforts. There has been a steady increase in attendance and a development in all directions, as will be seen from the following statistics:

## ATTENDANCE.

### WHITE DEPARTMENT.

Number of pupils present October 31, 1893 . . . . .	166
New pupils admitted during the year . . . . .	41
Old pupils returned . . . . .	10
	<u>51</u>
Total enrolled during the year . . . . .	217
Graduated during the year . . . . .	5
Dismissed for incapacity . . . . .	4
Suspended for misconduct . . . . .	1
Voluntarily remained at home . . . . .	23
	<u>33</u>
Present October 31, 1894 . . . . .	184
New pupils admitted during the year ending Oct. 31, 1895 . . . . .	81
Old pupils returned . . . . .	24
	<u>105</u>
Total enrolled for the year . . . . .	289
Graduated . . . . .	1
Dismissed for incapacity . . . . .	2
Suspended for misconduct . . . . .	1
Voluntarily remained at home . . . . .	29
	<u>33</u>
Present October 31, 1895 . . . . .	<u>256</u>

## COLORED DEPARTMENT.

Number of pupils present October 31, 1893 . . . . .	29
New pupils admitted during the year . . . . .	7
Old pupils returned . . . . .	2
	<hr/> 9
Total enrolled during the year . . . . .	38
Dismissed for incapacity . . . . .	1
Voluntarily remained at home . . . . .	8
	<hr/> 9
Present October 31, 1894 . . . . .	29
New pupils admitted during the year ending October 31, 1895 . . . . .	10
Old pupils returned . . . . .	7
	<hr/> 17
Total enrolled during the year . . . . .	46
Suspended for misconduct . . . . .	1
Dismissed for incapacity . . . . .	2
Voluntarily remained at home . . . . .	4
	<hr/> 7
Present October 31, 1895 . . . . .	<hr/> 39
Total number present in both departments October 31, 1893 . . . . .	195
Total number present in both departments October 31, 1895 . . . . .	295
Total number enrolled in both departments during the two years . . . . .	363
Total number enrolled the present session to November 1, 1895 . . . . .	300
Total number of new pupils this year . . . . .	91



The various counties of the State are represented by pupils as follows :

COUNTIES.	White.	Colored.	COUNTIES.	White.	Colored.
Adair . . . . .	2	..	Hickman . . . . .	1	..
Allen . . . . .	1	..	Hopkins . . . . .	4	1
Anderson . . . . .	1	..	Jackson . . . . .	3	..
Ballard . . . . .	2	..	Jefferson . . . . .	24	6
Barren . . . . .	2	1	Jessamine . . . . .	3	2
Bath . . . . .	1	1	Johnson . . . . .	2	..
Bell . . . . .	..	..	Kenton . . . . .	7	..
Boone . . . . .	3	..	Knott . . . . .	..	..
Bourbon . . . . .	..	1	Knox . . . . .	7	..
Boyd . . . . .	2	..	LaRue . . . . .	4	..
Boyle . . . . .	1	..	Laurel . . . . .	13	..
Bracken . . . . .	5	..	Lawrence . . . . .	2	..
Breathitt . . . . .	2	..	Lee . . . . .	3	..
Breckinridge . . . . .	2	..	Leslie . . . . .	2	..
Bullitt . . . . .	1	..	Letcher . . . . .	3	..
Butler . . . . .	4	..	Lewis . . . . .	..	..
Caldwell . . . . .	..	..	Lincoln . . . . .	11	1
Calloway . . . . .	6	..	Livingston . . . . .	2	..
Campbell . . . . .	10	..	Lyon . . . . .	..	1
Carlisle . . . . .	..	..	McCracken . . . . .	1	..
Carroll . . . . .	3	1	McLean . . . . .	2	..
Carter . . . . .	5	..	Madison . . . . .	6	2
Casey . . . . .	1	..	Magoffin . . . . .	4	..
Christian . . . . .	2	1	Marion . . . . .	2	..
Clark . . . . .	..	2	Marshall . . . . .	6	..
Clay . . . . .	3	..	Martin . . . . .	2	..
Clinton . . . . .	..	..	Mason . . . . .	2	1
Crittenden . . . . .	5	..	Meade . . . . .	1	..
Cumberland . . . . .	2	..	Menefee . . . . .	1	..
Daviess . . . . .	4	1	Mercer . . . . .	3	..
Edmondson . . . . .	1	..	Metcalf . . . . .	..	..
Elliott . . . . .	1	..	Monroe . . . . .	..	..
Estill . . . . .	4	..	Montgomery . . . . .	2	..
Fayette . . . . .	1	6	Morgan . . . . .	3	..
Fleming . . . . .	2	1	Muhlenberg . . . . .	2	1
Floyd . . . . .	1	..	Nelson . . . . .	1	4
Franklin . . . . .	4	2	Nicholas . . . . .	2	1
Fulton . . . . .	3	1	Ohio . . . . .	3	..
Gallatin . . . . .	..	..	Oldham . . . . .	..	..
Garrard . . . . .	3	4	Owen . . . . .	2	..
Grant . . . . .	3	..	Owsley . . . . .	..	..
Graves . . . . .	4	..	Pendleton . . . . .	3	..
Grayson . . . . .	2	..	Perry . . . . .	7	..
Green . . . . .	2	4	Pike . . . . .	1	..
Greenup . . . . .	1	..	Powell . . . . .	..	..
Hancock . . . . .	..	..	Pulaski . . . . .	4	..
Hardin . . . . .	7	..	Robertson . . . . .	..	..
Harlan . . . . .	9	..	Rockcastle . . . . .	1	..
Harrison . . . . .	1	..	Rowan . . . . .	2	..
Hart . . . . .	7	..	Russell . . . . .	1	..
Henderson . . . . .	3	3	Scott . . . . .	1	..
Henry . . . . .	3	..	Shelby . . . . .	2	..

COUNTIES.			COUNTIES.		
	White.	Colored.		White.	Colored.
Simpson . . . . .			Warren . . . . .		
Spencer . . . . .			Washington . . . . .	3	
Taylor . . . . .			Wayne . . . . .		
Todd . . . . .			Webster . . . . .	8	
Trigg . . . . .	1		Whitley . . . . .	7	1
Trimble . . . . .	1		Wolfe . . . . .		
Union . . . . .			Woodford . . . . .	1	2
			Total . . . . .	311	52
					363

This is a gratifying showing when compared with any like period in the history of the School; but it is far from satisfactory, when one remembers that these figures represent only about one-half of the deaf children of school age in Kentucky. Besides those who are actually now in school, I have the names of 278 others who should be here. And I am sure that there are yet many more whose names I have not yet been able to secure, who should be induced to take advantage of the education offered them by the State *free of charge*. And the most distressing part of it is that there are many whom I have been unable to induce to come to school, even after visiting their homes and presenting to the best of my ability the privileges of the School to their parents—bright, promising children, who might be taught to be self-supporting, independent citizens. In many cases the parents simply refuse to let them come. They give no reason for this except that they do not wish to be separated from their children.

There are some who are kept at home by selfish guardians, and, in some cases *parents*, simply to be used as *servants*. There are a few who do not know the advantages of an education, and argue that to educate their deaf children but makes them capable of becoming villainous tricksters. But by far the greatest number is kept out for want of the necessary funds with which to properly clothe them and to pay traveling expenses. Our clothing fund is only \$200 per year, and that enables us to clothe only a very small number.

These things makes me seriously question whether it would

not be wise for the Legislature to pass a compulsory education law. And this seems the more apparent when one considers the liability of deaf persons to become charges upon their respective communities if not educated, either because of inability to earn a livelihood, having no opportunity to learn a trade; or on account of criminality, having no conception of moral obligation.

### THE HEALTH RECORD

Of the School for the past two years has been remarkable. There have been a few cases of sickness during the time, but most of them have been imported cases of malaria, developing later into typhoid, and two right severe cases of pneumonia, but not a single death, though the attendance has been far larger than formerly. And this is the more wonderful, when the enfeebled physical condition of many of our pupils, induced by that which caused deafness, is remembered. Many persons who lose their hearing from disease are left in a depleted condition which is not easily overcome. A large majority of our pupils, too, are small children. These facts make the record nothing short of marvelous, and show the healthfulness of our location and the skill of our physician beyond a doubt.

### LITERARY DEPARTMENT.

The same general plan which has been in operation for the past several years, under my most worthy predecessor, is still pursued. There have been no radical changes. None were necessary. Our object has been to improve upon past experience and make the School better each year. It is a poorly conducted school which does not grow better with each succeeding session.

### METHODS OF INSTRUCTION.

These are the same as are found in the oldest and best schools for the deaf in America. We use what is known as the "Combined System," that is, we use *any method* by which a child can be best taught. "The greatest good to the greatest number" is our motto. When children come to us early enough in life, we place them under oral instruction, where every one is given an opportunity to learn to speak. Those who succeed

creditably are kept in oral classes; and the attainments so far encourage us to continue this arrangement. Those who do not succeed—and there are some who do not and *can not*—their teachers being judges, are put into manual classes, where writing, the manual alphabet and some signs, when necessary, are employed as means for accomplishing the child's mental development.

There are those who come to us too late in life to learn to speak successfully. These we have to place in manual classes; for the short time they have in school makes it necessary for them to bend every energy towards the acquirement of language. There are yet others who hear enough to be taught through the ear, though not enough to be educated in the public schools near their respective homes. These are all placed under what we call *aural* instruction, and whatever power of hearing they have is utilized, and, if possible, improved. We now have from 30 to 50 of these semi-deaf children.

It is thus seen that we use any method known to the profession by which we can best teach the children committed to our care. And I wish to testify to the great efficiency of our teachers in their respective departments. They are as good as the best.

### CHANGES.

The change which most seriously affected the School, and the one which every one regretted most, was the resignation and retirement of the former well-beloved, honored and very efficient Superintendent, Mr. W. K. Argo. His failing health made it incumbent upon him to seek a change, and at a meeting of the Board in May, 1894, he resigned the position which he had so acceptably filled and went to Colorado. The present incumbent was elected to the position the third of July following and took charge August 9, 1894. The retirement of Mr. Argo made it necessary for Mrs. Argo also to resign.

The position occupied by Mrs. Argo was filled by the election of Miss Hermine M. Haupt, who has had several years of experience in teaching the deaf, and whose success with us has been most gratifying. The increase in attendance made it necessary to engage Miss Mary S. Breckenridge, an excellent teacher, last



year, but her health was not vigorous and she resigned at the end of the past session, and Miss Florence Bennett, a lady of extensive experience in the education of the deaf, succeeds her.

The other additions to our faculty are these; Miss Belle Lunsford, a graduate of this School; Miss Alice Haynes, daughter of deaf parents and a graduate from one of the best seminaries for young ladies in the South; Mr. Herbert E. Day, a graduate of Brown University and of the Normal Department of the National College for the Deaf, at Washington, D. C., and for a year connected with the California School for the Deaf; and Misses Emma Nichols and Lettie Green, very promising young ladies of Danville, who took normal instruction in our own School last year, and are now dividing the duties of a class between them and still pursuing their normal training the rest of the time.

### IMPROVEMENTS.

The fire escapes for whose erection provision was made by the last General Assembly have been completed and prove to be even more than we had anticipated. They are all we could ask. I do not see how it would be possible to improve upon them for the purpose for which they were erected.

The large, spacious, convenient barn which is such a comfort to us is also the gift of the same Legislature.

The old unsightly wooden water closets which were formerly about all the convenience of their kind we had have given way to new brick structures with modern conveniences of all kinds.

Water mains have been run connecting the buildings of both departments with the city water pipes, and we now have the luxury of water connections for all purposes.

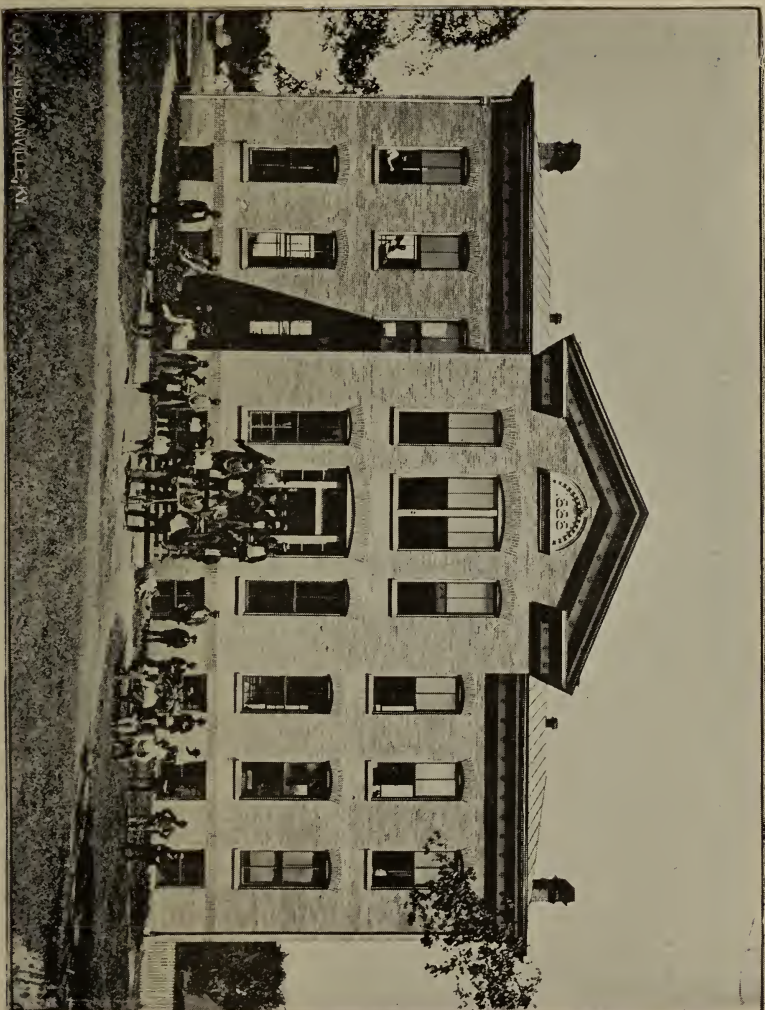
The sewer for the Colored Department has been extended so as to connect with the main sewer of the Institution.

The Green property purchased some months ago has been brought into requisition as dormitory room for our boys. But for this we should not have been able to receive so many as we now have in school.

### COLORED DEPARTMENT.

This department of our Institution life is in a most gratifying condition. The methods in vogue in the White Department are





INDUSTRIAL BUILDING.

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used here and the instruction given is just as faithfully and energetically done, and there is a steady growth and development which now calls for an additional teacher, which I trust will be provided at once. There is ample room for several more colored deaf children, and it is to be regretted that more do not take advantage of the privileges here offered. We can easily care for fifty or sixty.

### INDUSTRIAL DEPARTMENT.

There has been no material change in this part of our work. We still give instruction daily, including Saturdays, in carpentry, cabinet making, printing, shoe-making and mending, and gardening for the boys; and needle work, fancy work, dress making and the like for the girls. These are doing great things for the boys and girls who are under our care, and a very large majority of them go out from us bread winners, able to take care of themselves and others, prepared for the difficult battles of life.

I believe the time has come when other features should be added to this department, since the present shops are overcrowded, and yet a large number of our boys are without employment much of the time. I would most respectfully suggest the advisability of establishing a bakery and a tailor shop, both of which would prove valuable adjuncts to our Industrial Department, and would very soon more than pay for themselves in their products, besides teaching our pupils good trades at which they can earn bread after going from us.

The Course of Instruction remains as formerly, with such changes and amendments as the experience of the teachers and Superintendent deem desirable.

The lectures which have proved so interesting and helpful to our pupils are still kept up, the teachers and Superintendent taking turns at the exercise.

Regular monthly teachers' meetings are held, at which there are lively, helpful discussions upon the topics pertaining to our work, the difficulties in our way, and educational matters generally.

The pupils hold their Literary Society meetings regularly each two weeks, and one of the male teachers presides for the

purpose of assisting in lessons of propriety and parliamentary usage, as well as to criticise the literary exercises.

The Kentucky Deaf-Mute, Little Helper and Pupils' Journal are still published by our Printing Department, the pupils themselves editing the Journal and the teachers taking turns in preparing matter for the Little Helper. These are all great aids to the School in inducing the children to read—one of the most difficult problems in connection with our work. The Deaf-Mute is especially valuable as a means of communication between the School and the parents of the pupils, as well as an exchange with similar publications of like institutions in other States. It is gratifying to know that ours ranks high in the profession, and is a credit to this School.

#### SOME PRESSING NEEDS.

The growth of the school and the natural progress of the times have entailed upon us several *very urgent needs*. Some of them are—

1. A school-house large enough to accommodate all our classes and for an assembly room. We have been using both our study rooms, our reading rooms, our chapel and some of our dormitory rooms for school-rooms, and this causes great inconvenience. The chapel will barely accommodate our pupils, and when we have closing exercises, or any public gatherings, we have no room for the public.

2. Our dining-room is now far too small for the number present, to say nothing of the possible growth of the future.

3. The present heating plant is insufficient. Properly enlarged and rightly located, it should heat all the buildings in all departments, and this would save a great deal in fuel and cause much less risk from fire.

4. The dormitories are crowded to the doors, and there is no more room in the white department, though we have put all our lady teachers outside the main buildings and are using the Green property, recently bought, for dormitory purposes. We must have more room, or our school can not grow any more.

5. The present water closet and bathing apartments are much too small for our present numbers even.

6. What music is to the blind, art is to the deaf. Nearly all



the schools for the deaf in this country have realized this and have established art departments. As a consequence, many of their graduates secure untold pleasure and profit from the same, and not a few earn a livelihood by their pencil and brush. I believe it would greatly benefit our School to have a good art teacher.

7. That which causes deafness in a majority of our pupils—disease—very often leaves the system so debilitated that much evil and suffering result. To overcome this defect is the aim of every well organized school. Our best schools for hearing children whose bodies are not abnormally diseased are supplied with good gymnasiums, and physical development, without which no child can attain the best mental and moral growth, is made one of the essentials of education. If normal children need this, much more do abnormal ones.

8. We have no cold storage nor any vegetable storage room. This entails great inconvenience and much expense upon the School.

9. As shown elsewhere, we seriously need a larger clothing fund and more money with which to pay our teachers. There has been no increase in the fund for paying teachers for the past ten years, and none in the meagre fund for clothing indigent children since the civil war. And ten years ago we had just half as many teachers as we now have, and when the clothing fund was granted, there were only about twenty-five children dependent upon it.

#### PER CAPITA ALLOWANCE.

The statutes of Kentucky make provision for a per capita allowance of \$140 for our pupils. In addition to this, there are special annual appropriations amounting to \$13,500 to pay teachers' salaries, and \$200 a year for clothing indigent children. For ordinary purposes the per capita is sufficient; but for special expenses it is easily seen that the amounts are too small. The fund for teachers has been the same for the past ten years, and the clothing fund was granted when the number of pupils was very small. Our general fund has had to make up the deficit in both these directions.

I would most respectfully recommend that application be made to the next General Assembly for an increase of our ap-



appropriation for teachers' salaries, and for the clothing and traveling expenses of indigent deaf children. If the clothing fund is made sufficient, our pupils can be put into uniform, which I regard as very desirable for several reasons. It would cost no more to do this, and our pupils would be very much more comfortable and neatly clad. Of course parents who are able would still be required to clothe their children.

### THE CONVENTION.

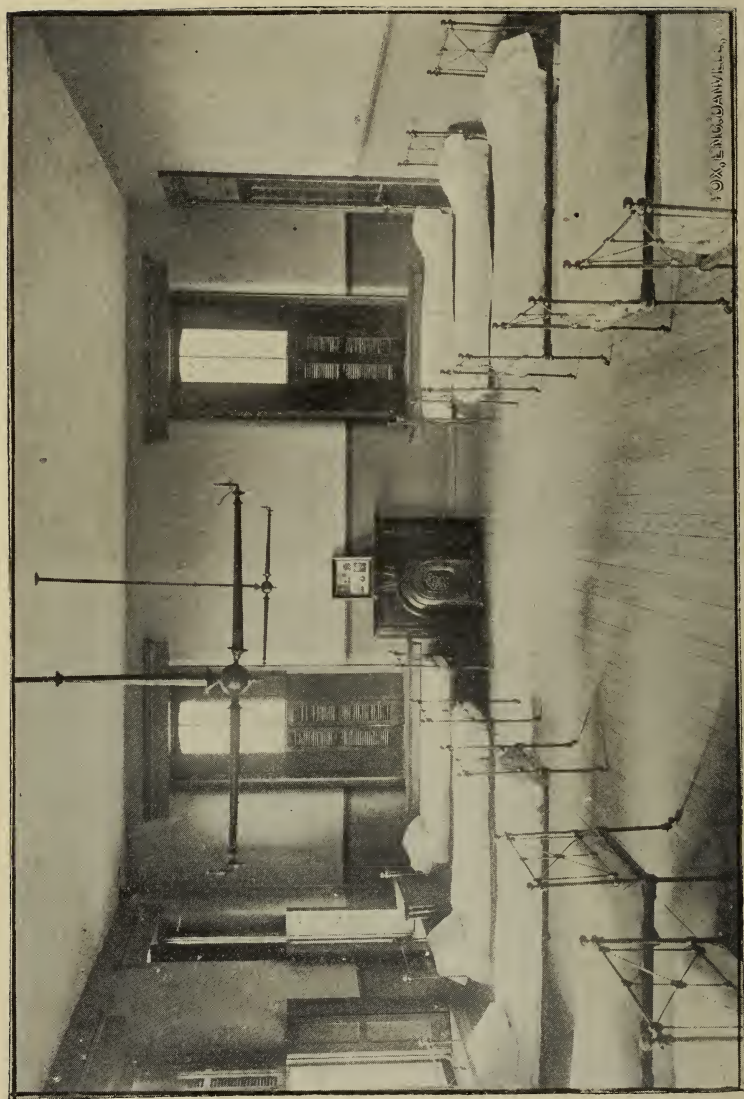
The American Convention of Instructors of the Deaf, which met with the Michigan School in July, 1895, marks an epoch in the history of the education of the deaf. It was really the first *convention* ever held in this country, and was more largely attended by those actively engaged in teaching the deaf than any gathering of a kindred nature ever held upon the Continent. Several of the teachers of this School were present. The proceedings are to be had in pamphlet form, and so I shall not refer to them more extensively here.

### SUGGESTIONS.

It would be a very helpful thing to the deaf if the text-books used in the public schools of the State should have a copy of the manual alphabet, such as is used in nearly all schools for the deaf in America, inserted in them. It would induce hearing boys and girls to acquire the use of the alphabet, and they could "spell upon their fingers" to their deaf friends and relations. The deaf would be brought nearer to the outside world, and would be much less isolated, and so could be made more useful at home. The hearing would also be benefitted, since it would enable them to converse in sick rooms and such places without annoyance to others.

Much of the worry in our work, and one of the most discouraging parts of it, is that our pupils have to *unlearn* so much that they come to us with. Bad habits of a moral and a physical nature have to be eradicated. Would not much of this be avoided if our deaf children came to us sooner and were placed in a good Kindergarten? The habits of industry, attention, concentration and neatness there formed would be a most valuable foundation upon which to build the superstructure of more extensive education, both of hand and head and heart.

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DORMITORY.



DINING ROOM.

LIBRARY  
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I believe it would be wise to change the technical title of our Institution to "The Kentucky School for the Deaf."

Our thanks are due and are hereby most heartily extended to the railroads of the State which have shown us such kindness in the transportation of the children to and from school, and in furnishing the Superintendent the facilities for reaching so many parts of the State without cost.

We are also indebted to the publishers of many of the papers of our State for the regular visits of their publications to our reading rooms, and to similar institutions in other States for courtesy of an exchange with our Institution paper, the Deaf-Mute.

DAILY SCHEDULE.

Rise at . . . . .	5:45 A. M.	Dinner at . . . . .	12:45 P. M.
Breakfast at. . . . .	6:25 A. M.	Shops . . . . .	1:45 to 4:15 P. M.
Chapel . . . . .	7:35 A. M.	Supper . . . . .	5:45 P. M.
School . . . . .	7:55 A. M.	Study . . . . .	7:00 P. M.

SATURDAYS:

Shops . . . . .	7:15 to 10:45 A. M.	Dinner . . . . .	12:00 NOON.
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SUNDAYS:

Rise at . . . . .	6:45 A. M.	Breakfast . . . . .	7:15 A. M.
Chapel . . . . .	9:00 <sup>a</sup> A. M.	Dinner . . . . .	1:00 P. M.
Chapel 3:00 P. M.			

CONCLUSION.

Permit me, gentlemen of the Board, to express to you individually and collectively, my most profound thanks for your uniform courtesy and kindness to me. I appreciated the compliment you conferred upon me in giving me your unanimous vote upon the first ballot to become your Superintendent. I feel none the less grateful for the consideration you have shown me ever since. The unselfish, untiring interest you have manifested in the School in all its details has been an inspiration to me and my co-laborers, and has done more to encourage us and build up the School than you know.

I wish also again to bear testimony to the loyalty, efficiency and hearty co-operation which have been evinced by the officers and teachers. Heaven's choicest blessings upon you, them and the School.

Most respectfully,  
JOHN E. RAY, Superintendent.

# TREASURER'S REPORT 1893-95.

## WHITE DEPARTMENT.

JOS. H. THOMAS, *Treasurer,*

*In account with the Kentucky Institution for Deaf-Mutes, from November 1, 1893, to November 1, 1894:*

### DEBITS.

To cash received from State Auditor for board and tuition. . . . .	\$17,220 00	
To cash received of Auditor, annual appropriation . . . . .	7,495 00	
To cash received from Auditor, for clothing . . . . .	200 00	
		<u>\$24,915 00</u>
To cash received, interest on invested funds . . . . .	\$728 00	
To cash received, non-resident pupils . . . . .	191 60	
To cash received from sale of live stock . . . . .	189 67	
To cash received, shoe shop . . . . .	110 95	
To cash received, clothing bills . . . . .	88 80	
To cash received, garden . . . . .	40 67	
To cash received, miscellaneous (from Superintendent) . . . .	1,020 81	
		<u>2,370 50</u>
To cash borrowed from Library Fund. . . . .	\$1,000 00	
To cash on call loans . . . . .	10,500 00	
To cash from Building Fund. . . . .	6,687 95	
		<u>\$18,187 95</u>
Total receipts. . . . .		<u><u>\$45,473 45</u></u>

### CREDITS.

By balance due Treasurer, October 31, 1893 . . . . .	\$802 73	
By paid for Green property . . . . .	4,000 00	
By paid note and interest . . . . .	3,003 50	
		<u>\$7,806 23</u>
By paid current expenses and salaries, as follows:		
Books and school supplies . . . . .	\$143 68	
Breadstuffs . . . . .	906 86	
Carpenter shop . . . . .	757 60	
Clothing . . . . .	235 10	
Drugs and medicines . . . . .	147 76	
Dry goods . . . . .	368 26	
Freight and express . . . . .	167 50	
Fresh meat. . . . .	2,446 61	

Fuel . . . . .	\$1,755 01	
Furniture . . . . .	143 75	
Garden and farm . . . . .	429 94	
Gas . . . . .	803 25	
General groceries . . . . .	3,647 87	
Hardware . . . . .	162 19	
Household supplies and general repairs . . . . .	741 82	
Ice . . . . .	61 10	
Insurance . . . . .	1,417 10	
Live stock . . . . .	211 80	
Medical attendance and dentistry . . . . .	499 75	
Miscellaneous . . . . .	150 34	
Postage and box rent . . . . .	126 78	
Printing office . . . . .	153 83	
Provender . . . . .	575 17	
Repairs and improvements . . . . .	3,132 03	
Salaries . . . . .	10,347 75	
Shoe shop . . . . .	990 62	
Stationery . . . . .	34 76	
Traveling expenses . . . . .	341 23	
Vegetables and fruits . . . . .	226 10	
Wages . . . . .	4,857 42	
		\$35,982 28
Balance on hand October 31, 1894 . . . . .		1,684 94
		<u>\$45,473 45</u>

JOS. H. THOMAS, *Treasurer*,

*In account with the Kentucky Institution for Deaf-Mutes from November 1st, 1894, to November 1st, 1895.*

## DEBITS.

To cash on hand November 1st, 1894 . . . . .	\$1,684 94	
To cash received from Auditor, board and tuition . . . . .	\$37,366 90	
To cash received from Auditor, annual appropriation . . . . .	5,255 17	
To cash received from Auditor, clothing fund . . . . .	200 00	
		42,822 07
To cash from sale of live stock . . . . .	\$338 39	
To cash received from shoe shop . . . . .	47 70	
To cash received from interest on invested funds . . . . .	818 00	
To cash received from clothing bills . . . . .	586 56	
To cash received from garden . . . . .	46 60	
To cash received from printing office . . . . .	97 60	
To cash received, miscellaneous (Supt.) . . . . .	568 25	
		2,503 10
To cash, call loan . . . . .	7,000 00	
To balance due Treasurer October 31st, 1895 . . . . .	1,104 60	
		<u>\$55,114 71</u>

## CREDITS.

By amount paid call loan . . . . .	\$15,290 50	
By error in check . . . . .	42 00	
	<hr/>	\$15,332 50
By paid current expenses and salaries as follows:		
Books and school supplies . . . . .	\$567 51	
Breadstuffs . . . . .	1,153 39	
Carpenter shop . . . . .	769 19	
Clothing . . . . .	639 64	
Drugs and medicines . . . . .	243 50	
Dry goods . . . . .	574 46	
Freight and express . . . . .	246 85	
Fresh meat . . . . .	2,705 56	
Fuel . . . . .	1,177 88	
Furniture . . . . .	779 05	
Garden and farm . . . . .	546 36	
Gas . . . . .	908 15	
General groceries . . . . .	5,564 23	
Hardware . . . . .	643 20	
Household supplies and general repairs . . . . .	1,653 29	
Ice . . . . .	57 52	
Insurance . . . . .	244 60	
Live stock . . . . .	326 50	
Medical attendance and dentistry . . . . .	799 80	
Miscellaneous . . . . .	503 08	
Postage and box rent . . . . .	125 00	
Printing office . . . . .	627 70	
Provisioner . . . . .	1,309 35	
Repairs and improvements . . . . .	1,520 56	
Salaries . . . . .	8,459 16	
Shoe shop . . . . .	1,332 03	
Stationery . . . . .	70 00	
Traveling expenses . . . . .	623 76	
Vegetables and fruits . . . . .	149 69	
Wages . . . . .	5,461 20	
	<hr/>	
Total . . . . .		39,782 21
		<hr/>
		<u>\$55,114 71</u>

The above is a correct statement of all moneys received and paid out by me from November 1st, 1893, to November 1st, 1895, for the White Department.

JO. H. THOMAS, *Treasurer.*

# TREASURER'S REPORT 1893-95.

## COLORED DEPARTMENT.

Jos. H. THOMAS., *Treasurer,*

*In account with the Kentucky Institution for Deaf-Mutes, from November 1st, 1893 to November 1st, 1894.*

### DEBITS.

To cash on hand November 1st, 1893 . . . . .		\$340 81
To cash received from Auditor for board and tuition . . . .	\$2,030 00	
To cash received from Auditor, annual appropriation . . . .	1,250 00	
		3,280 00
To balance due Treasurer November 1st, 1894 . . . . .		2,106 46
		<u>\$5,727 27</u>

### CREDITS.

By amount paid for current expenses and salaries as follows:

Books and school supplies . . . . .	\$5 10
Breadstuffs . . . . .	151 12
Clothing . . . . .	118 65
Drugs and medicines . . . . .	46 25
Dry goods . . . . .	70 21
Fresh meat . . . . .	487 95
Fuel . . . . .	836 29
Garden and farm . . . . .	10 75
Gas . . . . .	176 82
General groceries . . . . .	586 95
Hardware . . . . .	2 50
Household supplies and general repairs . . . . .	88 27
Ice . . . . .	4 90
Insurance . . . . .	170 00
Medical attendance and dentistry . . . . .	132 10
Miscellaneous . . . . .	23 25
Postage and box rent . . . . .	1 50
Provender . . . . .	46 19
Repairs and improvements . . . . .	239 91
Salaries . . . . .	1,750 00
Stationery . . . . .	7 50
Traveling expenses . . . . .	34 31
Vegetables and fruits . . . . .	43 55
Wages . . . . .	693 20
	<u>\$5,727 27</u>



JOS. H. THOMAS, *Treasurer*,

*In account with the Kentucky Institution for Deaf-Mutes from November 1, 1894, to November 1, 1895.*

#### DEBITS.

To cash received from Auditor for board and tuition . . . .	\$2,213 20	
To cash received from Auditor, annual appropriation . . . .	2,500 00	
		<u>\$4,713 20</u>
To balance due Treasurer November 1, 1895 . . . . .		2,878 84
		<u><u>\$7,591 54</u></u>

#### CREDITS.

By balance due Treasurer November 1, 1894 . . . . .		\$2,106 46
By amount paid for current expenses and salaries as follows:		
Books and school supplies . . . . .	\$260 95	
Breadstuffs . . . . .	158 01	
Clothing . . . . .	96 80	
Drugs and medicines . . . . .	4 55	
Dry goods . . . . .	137 21	
Freight and express . . . . .	88 25	
Fresh meats . . . . .	520 47	
Fuel . . . . .	56 55	
Furniture . . . . .	180 80	
Garden and farm . . . . .	46 35	
Gas . . . . .	194 35	
General groceries . . . . .	924 84	
Hardware . . . . .	59 82	
Household supplies and general repairs . . . . .	179 98	
Ice . . . . .	49 63	
Live stock . . . . .	127 50	
Medical attendance and dentistry . . . . .	29 80	
Miscellaneous . . . . .	75 06	
Postage and box rent . . . . .	15 70	
Printing office . . . . .	2 00	
Provender . . . . .	75 81	
Repairs and improvements . . . . .	234 12	
Salaries . . . . .	1,225 00	
Traveling expenses . . . . .	94 95	
Vegetables and fruits . . . . .	44 08	
Wages . . . . .	602 50	
		<u>\$5,485 08</u>
		<u><u>\$7,591 54</u></u>

The above is a correct statement of all moneys received and paid out by me for the Colored Department from November 1, 1893, to November 1, 1895.

JO. H. THOMAS, *Treasurer*.

**PERMANENT FUND.**

The permanent fund of the Institution was derived from the sale of a township of land donated by Congress in 1826, and the library fund by two donations of \$1,000 each—one made by Capt. Megowan, of Montgomery county, Kentucky, and the other by Daniel Cozatt, of Mercer county, Kentucky—the interest on the above two donations to be used as a library fund.

The permanent fund in my last report showed as follows, viz:

50 shares of Boyle National Bank, Danville. . . . .	\$5,000 00
5 shares of Citizens' National Bank, Louisville. . . . .	500 00
6-3 per cent. Tennessee bonds . . . . .	6,000 00
1-3 per cent. Tennessee bond. . . . .	600 00
	<hr/>
	<u>\$12,100 00</u>

By order of the Board the President was ordered to sell the Tennessee bonds, and use a portion of the same in putting up bath-rooms and water-closets, etc., and invest the balance in some good security. The bonds, when sold, realized \$5,913.75—\$2,340.75 was used in putting up bath-houses, etc., and \$3,573.00 invested in Louisville City Railroad Stock (preferred).

The permanent fund today is—

50 shares Boyle National Bank, Danville . . . . .	\$5,000 00
36 shares of Louisville City Railroad Stock (preferred) . . . . .	3,600 00
5 shares of Citizens' National Bank, Louisville. . . . .	500 00
	<hr/>
	<u>\$9,100 00</u>

**LIBRARY FUND.**

The library fund consists of—

10 shares of Citizens' National Bank, Louisville . . . . .	\$1,000 00
Note of D. and D. Institute . . . . .	1,000 00
	<hr/>
	<u>\$2,000 00</u>

JO. H. THOMAS, *Treasurer.*

# PHYSICIAN'S REPORT.

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The following tabulated statement of diseases and injuries, with the subsequent comments thereon, will, I think, give a correct idea of the health of the Institution since my last report:

## DISEASES.

Abscess of axilla . . . . .	1
Abscess of arm . . . . .	1
Abscess of thigh . . . . .	1
Abscess of leg . . . . .	1
Acne . . . . .	1
Andenitis cervical . . . . .	1
Amenorhea . . . . .	1
Anemia . . . . .	2
Appendicitis . . . . .	1
Blepharitis marginalis . . . . .	1
Bronchitis, acute . . . . .	15
Bronchitis, chronic . . . . .	4
Cerebral hyperemia . . . . .	1
Cholemia . . . . .	1
Cataract, congenital . . . . .	1
Conjunctivitis, acute . . . . .	10
Dermatitis, venanata . . . . .	1
Diarrhoea . . . . .	1
Dyspepsia . . . . .	2
Eczema . . . . .	6
Epilepsy . . . . .	2
Errors of refraction . . . . .	10
Erythema . . . . .	3
Fever, simple continued . . . . .	11
Fever, remittent . . . . .	4
Fever, typhoid . . . . .	4
Fever, typho-malarial . . . . .	2
Glossitis, simple . . . . .	1
Glossitis, ulcerative . . . . .	2
Hyperidrosis . . . . .	1
Hysteria . . . . .	1

Incontinuanee of urine . . . . .	3
Leucoma, corneal, from interstitial keratitis . . . . .	1
Otorrhea . . . . .	1
Pannus sicca . . . . .	1
Paronychia . . . . .	1
Parotiditis . . . . .	2
Pertussis . . . . .	20
Pharyngitis . . . . .	1
Phthisis pulmonalis . . . . .	2
Pneumonia . . . . .	7
Prurigo . . . . .	1
Psoriasis Palmaris . . . . .	1
Rheumatism, acute . . . . .	1
Rheumatism, chronic . . . . .	1
Scabies . . . . .	2
Synoritis elbow joint, suppurative . . . . .	1
Tonsilitis . . . . .	1
Tonsilitis, follicular . . . . .	2
Varicocele . . . . .	1
Vulvo-Vaginitis . . . . .	1
Ulcer of cornea . . . . .	1
<b>Total diseases . . . . .</b>	<b>147</b>

## INJURIES.

Fracture of clavicle . . . . .	1
Fracture of true pelvis . . . . .	1
Fracture of (Colle's) radius . . . . .	1
Incised wound of scalp . . . . .	2
<b>Total injuries . . . . .</b>	<b>5</b>

There has been no death, notwithstanding the large number of serious and protracted cases of such diseases as typhoid, typho-malarial and remittent fevers, pneumonias, whooping cough, &c., and a fracture of the true pelvis, an injury, however uncomplicated, always having a prognosis of the most unfavorable character.

All except the cases of phthisis, which were sent home, made perfect recoveries.

A reference to the foregoing diseases shows the character and amount of sickness to have been quite serious, and apparently greatly increased. The largely increased attendance of pupils must, however, be borne in mind, as also the somewhat overcrowded condition of the dormitories, school-rooms, etc.

The careful sanitary supervision of the Superintendent, good nursing, and promptness in meeting the first indications of diseases, have as causes, all worked together as heretofore to enable me to present another like the many previous reports *without the record of a single death.*

The entire past history of the Institution shows a most exceptionally good record of immunity from death; our bills of mortality being something in excess only of three-tenths of one per cent.; whereas, the census reports of the whole country show a mortality of over one and eight-tenths of one per cent. for the whole population.

Let us not forget, however, that God alone is the giver of life, health and all real prosperity; and that to leave him out of our reckoning would be to build on the sand, and that daily the Great Shepherd and Keeper of Israel has been reverently invoked throughout the whole history of this Institution, by faithful Superintendents, teachers and others, to watch over these pupils with his unslumbering eye.

All of which is respectfully submitted.

GEORGE COWAN, M. D.,

*Physician to the Institution.*



## CATALOGUE OF PUPILS FROM NOV. 1, 1893, TO NOV. 1, 1895.

## WHITE DEPARTMENT.

NAME.	Post-office Address.	County.
Ackman, Isaac . . . . .	Mason . . . . .	Grant.
Adams, Emma . . . . .	Rowland . . . . .	Lincoln.
Adams, Lura . . . . .	Rowland . . . . .	Lincoln.
Adenan, Frank . . . . .	Newport . . . . .	Campbell.
Agee, Ida . . . . .	Newby . . . . .	Madison.
Agee, Ollie . . . . .	Newby . . . . .	Madison.
Allen, Buford . . . . .	Hamilton . . . . .	Boone.
Allen, Grace . . . . .	Dwale . . . . .	Floyd.
Anderson, Willie . . . . .	Oakville . . . . .	Logan.
Arnett, Flora . . . . .	Hodgensville . . . . .	LaRue.
Ausdenmoore, Emily . . . . .	Louisville . . . . .	Jefferson.
Austin, Luke . . . . .	Easy Gap . . . . .	Hardin.
Balee, Mamie . . . . .	Owensboro . . . . .	Daviess.
Ballard, Caleb . . . . .	Holy Cross . . . . .	Marion.
Ballard, Richard . . . . .	Holy Cross . . . . .	Marion.
Barnes, John . . . . .	Nancy . . . . .	Pulaski.
Bartholomew, Hilda . . . . .	Newport . . . . .	Campbell.
Barton, Martha . . . . .	Lily . . . . .	Laurel.
Baugh, Alice . . . . .	Somerset . . . . .	Pulaski.
Baugh, Peter . . . . .	Faubush . . . . .	Pulaski.
Bayers, Anna . . . . .	Louisville . . . . .	Jefferson.
Berlin, Ida . . . . .	Louisville . . . . .	Jefferson.
Blair, Prudence . . . . .	Louisville . . . . .	Jefferson.
Blankenship, Alice . . . . .	Maplesville . . . . .	Laurel.
Blessing, Ina . . . . .	Carrollton . . . . .	Carroll.
Blessing, Lily . . . . .	Carrollton . . . . .	Carroll.
Bloom, John . . . . .	Wesleyville . . . . .	Carter.
Boarman, Fannie . . . . .	Harcourt . . . . .	Hardin.
Boner, William . . . . .	Schuler . . . . .	Pendleton.
Bowman, Charles . . . . .	Godman . . . . .	Muhlenberg.
Brackett, Sallie . . . . .	Stanford . . . . .	Lincoln.
Brantley, Belle . . . . .	Repton . . . . .	Crittenden.
Brashear, Robert . . . . .	Owensboro . . . . .	Daviess.
Brewsaugh, Arthur . . . . .	Morgan . . . . .	Harrison.
Brewsaugh, Herbert . . . . .	Robinson . . . . .	Harrison.
Brewsaugh, William . . . . .	Robinson . . . . .	Harrison.
Brizendine, Maud . . . . .	Fulton . . . . .	Fulton.
Brown, Fannie . . . . .	Ekron . . . . .	Meade.
Brown, Sophronia . . . . .	Boreing . . . . .	Laurel.
Bruce, Everett . . . . .	Petersburg . . . . .	Boone.
Brumback, Dore . . . . .	Skinnerburg . . . . .	Scott.
Bryant, Annie . . . . .	Louisville . . . . .	Jefferson.
Buchert, William . . . . .	Newport . . . . .	Campbell.
Burkhead, Harlan . . . . .	Willisburg . . . . .	Washington.
Burns, Lula . . . . .	Hillsboro . . . . .	Fleming.
Burton, William . . . . .	Inez . . . . .	Martin.
Cahill, Nellie . . . . .	North Fork . . . . .	Mason.
Carpenter, Harley . . . . .	Ezel . . . . .	Morgan.
Carter, Thomas . . . . .	Beattyville . . . . .	Lee.
Castle, Edwin . . . . .	Paintsville . . . . .	Johnson.
Clark, Benjamin . . . . .	Berlin . . . . .	Bracken.
Clark, Eddie . . . . .	Benton . . . . .	Marshall.

## CATALOGUE OF PUPILS—WHITE—Continued.

NAME.	Post-office Address.	County.
Clark, Joseph . . . . .	Berlin . . . . .	Bracken.
Clark, Millie . . . . .	Berlin . . . . .	Bracken.
Clarke, Catherine . . . . .	Frenchburg . . . . .	Menefee.
Clements, Nellie . . . . .	Louisville . . . . .	Jefferson.
Clore, Irvine . . . . .	Constance . . . . .	Boone.
Collins, Dennis . . . . .	Covington . . . . .	Kenton.
Corman, Lelia . . . . .	Jessamine . . . . .	Jessamine.
Conrad, George . . . . .	Henderson . . . . .	Henderson.
Cottengin, Dillard . . . . .	Girdler . . . . .	Knox.
Cotton, Robert . . . . .	Larkins . . . . .	Christian.
Crawford, Etta . . . . .	Grayson . . . . .	Carter.
Cummins, Cynthia . . . . .	Antioch Mills . . . . .	Harrison.
Cummins, Ollie . . . . .	Antioch Mills . . . . .	Harrison.
Daniels, James . . . . .	Quod . . . . .	Magoffin.
Daniels, Malvina . . . . .	Quod . . . . .	Magoffin.
Darkie, Albert . . . . .	Louisville . . . . .	Jefferson.
Davis, Charles . . . . .	Bear Wallow . . . . .	Barren.
Davis, Rebecca . . . . .	Sumner . . . . .	Whitley.
Debart, Arthur . . . . .	Martinsburg . . . . .	Elliott.
DeLong, Jerry . . . . .	Pleasant . . . . .	Martin.
Desha, Benjamin . . . . .	Cynthiana . . . . .	Harrison.
Dickens, Grover Cleveland . . . . .	Louisville . . . . .	Jefferson.
Disz, Ella . . . . .	Bellevue . . . . .	Campbell.
Diuguid, Robert . . . . .	Murray . . . . .	Calloway.
Doyle, Mary . . . . .	Wilmore . . . . .	Jessamine.
Dozier, Elisha . . . . .	West Irvine . . . . .	Estill.
Duflot, August . . . . .	Mayfield . . . . .	Graves.
Duflot, George . . . . .	Mayfield . . . . .	Graves.
Dunkley, Bessie . . . . .	Hearin . . . . .	Webster.
Easterling, Netta . . . . .	Elamton . . . . .	Morgan.
Easterling, Rhoda . . . . .	Elamton . . . . .	Morgan.
Eden, Charles . . . . .	Spout . . . . .	Nicholas.
Eldridge, John . . . . .	Evarts . . . . .	Harlan.
Eldridge, Mary . . . . .	Evarts . . . . .	Harlan.
Elliott, Mattie . . . . .	Stewart . . . . .	Washington.
Embry, Frances . . . . .	Lee . . . . .	Butler.
Engle, Nancy . . . . .	Hazard . . . . .	Perry.
Engle, Poppea . . . . .	Hazard . . . . .	Perry.
Engle, Susan . . . . .	Hazard . . . . .	Perry.
Engleman, Bessie . . . . .	Shelby City . . . . .	Lincoln.
Erwin, Chester . . . . .	Henderson . . . . .	Henderson.
Etheridge, Mary . . . . .	Samuel's . . . . .	Nelson.
Felhoeelter, George . . . . .	Louisville . . . . .	Jefferson.
Fields, John . . . . .	Evarts . . . . .	Harlan.
Fields, Lalla . . . . .	Ripley, Tenn. . . . .	Fulton, Ky.
Frank, Sena . . . . .	Caneyville . . . . .	Grayson.
Freeman, Ida . . . . .	Beattyville . . . . .	Lee.
Fugate, Jefferson . . . . .	Avawam . . . . .	Perry.
Fugate, William . . . . .	Avawam . . . . .	Perry.
Gannon, Ellen . . . . .	Louisville . . . . .	Jefferson.
Gehringer, August . . . . .	Ashland . . . . .	Boyd.
Gill, Sallie . . . . .	Maplesville . . . . .	Laurel.
Goodwin, James . . . . .	Corbin . . . . .	Whitley.
Goodwin, William . . . . .	Corbin . . . . .	Whitley.
Grayson, John . . . . .	Neatsville . . . . .	Adair.
Groom, Olive . . . . .	Wickliffe . . . . .	Ballard.

## CATALOGUE OF PUPILS—WHITE—Continued.

NAME.	Post-office Address.	County.
Groom, Perry . . . . .	Wickliffe . . . . .	Ballard.
Hall, Annie . . . . .	Birdsville . . . . .	Livingston.
Hall, Lucy . . . . .	Fenwick . . . . .	Washington.
Hamilton, Haley . . . . .	Beattyville . . . . .	Lee.
Hampton, Harvey . . . . .	Byron . . . . .	Clay.
Harrell, Ernest . . . . .	Pritchard . . . . .	Graves.
Harris, Page . . . . .	Long Run . . . . .	Jefferson.
Hartman, George . . . . .	Louisville . . . . .	Jefferson.
Haskins, Dellie . . . . .	Lockport . . . . .	Henry.
Hatfield, Thomas . . . . .	Paintsville . . . . .	Johnson.
Helton, John . . . . .	Wallin's Creek . . . . .	Harlan.
Helton, Josephine . . . . .	Wallin's Creek . . . . .	Harlan.
Helton, Louisa . . . . .	Wallin's Creek . . . . .	Harlan.
Hickey, James . . . . .	Bessie . . . . .	Fulton.
Holiday, Maud . . . . .	Maysville . . . . .	Mason.
Holland, Lewis . . . . .	Calvert City . . . . .	Marshall.
Holmes, Carroll . . . . .	Stanton . . . . .	Powell.
Honicon, Leslie . . . . .	Cynthiana . . . . .	Harrison.
Hook, Oceola . . . . .	Hanson . . . . .	Hopkins.
Hord, Seth . . . . .	Hopkinsville . . . . .	Christian.
Hoskins, Pairlee . . . . .	Big Creek . . . . .	Clay.
Hovious, Minnie . . . . .	Knifley . . . . .	Adair.
Huber, Barbara . . . . .	Louisville . . . . .	Jefferson.
Humphrey, Effie . . . . .	Edenton . . . . .	Madison.
Iglehart, Fleming . . . . .	Morgantown . . . . .	Butler.
Intzi, Mary . . . . .	Louisville . . . . .	Jefferson.
Isaacs, Nancy . . . . .	Oakley . . . . .	Laurel.
Ishmael, Charles . . . . .	Carlisle . . . . .	Nicholas.
Jarvis, John . . . . .	Jarvis' Store . . . . .	Knox.
Jarvis, Sam . . . . .	Jarvis' Store . . . . .	Knox.
Jasper, Filmore . . . . .	Mintonville . . . . .	Casey.
Jenkins, Herbert . . . . .	Tilden . . . . .	Webster.
Johnson, Lettie . . . . .	Danville . . . . .	Garrard.
Jones, Juha . . . . .	Combs . . . . .	Madison.
Jones, Viola . . . . .	Covington . . . . .	Kenton.
Jordan, Washington . . . . .	York . . . . .	Greenup.
Kabler, Early . . . . .	Side View . . . . .	Montgomery.
Kammerer, John . . . . .	Louisville . . . . .	Jefferson.
Karns, Minnie . . . . .	Briensburgh . . . . .	Marshall.
Keenon, Lizzie . . . . .	Harrodsburg . . . . .	Mercer.
Kennedy, Lida . . . . .	Troy . . . . .	Woodford.
Kellams, John . . . . .	Louisville . . . . .	Jefferson.
Kessinger, Adam . . . . .	Gilstrap . . . . .	Butler.
Kessinger, Eva . . . . .	Gilstrap . . . . .	Butler.
Kincheloe, Oscar . . . . .	Campbellsburg . . . . .	Henry.
King, Zadie . . . . .	Milton . . . . .	Trimble.
Kutzeleb, Alvin . . . . .	Louisville . . . . .	Jefferson.
Lamb, Preston . . . . .	Iron Hill . . . . .	Crittenden.
Lambert, George . . . . .	Snider . . . . .	Rockcastle.
Lemaster, Jesse . . . . .	Flat Gap . . . . .	Johnson.
Lewis, Felix . . . . .	Cutshin . . . . .	Leslie.
Long, Alva . . . . .	Newport . . . . .	Campbell.
Long, Mamie . . . . .	Newport . . . . .	Campbell.
Lucas, Wyatt . . . . .	Owensboro . . . . .	Daviess.
Lunsford, Belle . . . . .	Webbville . . . . .	Lawrence.
McCubbins, Emma . . . . .	Belmont . . . . .	Bullitt.

## CATALOGUE OF PUPILS—WHITE—Continued.

NAME.	Post-office.	County.
McCullough, Lillian . . . . .	Fern Creek . . . . .	Jefferson.
McDonald, Moses . . . . .	Frankfort . . . . .	Franklin.
McGuire, Sylvia . . . . .	Goodnight . . . . .	Barren.
McIntosh, Abijah . . . . .	Crockettsville . . . . .	Perry.
McIntosh, Rosetta . . . . .	Crockettsville . . . . .	Perry.
Maggio, John . . . . .	Louisville . . . . .	Jefferson.
Manning, William . . . . .	Birmingham . . . . .	Marshall.
Marlett, Minnie . . . . .	Carrollton . . . . .	Carroll.
Martin, Emma . . . . .	Dalton . . . . .	Hopkins.
Martin Robert . . . . .	Lusby's Mill . . . . .	Owen.
Matthews, Charles . . . . .	Frances . . . . .	Crittenden.
Mauzy, Lily . . . . .	Dixon . . . . .	Webster.
May, David . . . . .	Salyersville . . . . .	Magoffin.
May, Susan . . . . .	Salyersville . . . . .	Magoffin.
Meadows, William . . . . .	Lancaster . . . . .	Garrard.
Medley, Emma . . . . .	St. Johns . . . . .	Hardin.
Meek, Laura . . . . .	Louisville . . . . .	Jefferson.
Meunier, Mary . . . . .	Moreland . . . . .	Lincoln.
Meunier, Ottie . . . . .	Moreland . . . . .	Lincoln.
Miller, Milton . . . . .	Smithland . . . . .	Livingston.
Mobley, Thomas . . . . .	Rowland . . . . .	Lincoln.
Mocabee, Fred . . . . .	Elliottville . . . . .	Rowan.
Moore, Elmer . . . . .	London . . . . .	Laurel.
Moore, Fred . . . . .	Honeywell . . . . .	Carter.
Moore, Howard . . . . .	Danville . . . . .	Boyle.
Moore, Melvin . . . . .	Music . . . . .	Carter.
Moore, Richard . . . . .	London . . . . .	Laurel.
Moore, Sallie . . . . .	London . . . . .	Laurel.
Morris, Lilv . . . . .	Nicholasville . . . . .	Jessamine.
Morris, Luther . . . . .	Cadiz . . . . .	Trigg.
Moss, Dock . . . . .	Owensboro . . . . .	Daviess.
Mullins, Della . . . . .	Maggard . . . . .	Letcher.
Myers, Parmelia . . . . .	Freestone . . . . .	Rowan.
Nisbet, Cline . . . . .	Madisonville . . . . .	Hopkins.
Noble, Fayette . . . . .	Jackson . . . . .	Breathitt.
Noll, Peter . . . . .	Crescent Springs . . . . .	Kenton.
Norris, Carrie . . . . .	Marrowbone . . . . .	Cumberland.
Norris, Ida . . . . .	Marrowbone . . . . .	Cumberland.
Northern, Thomas . . . . .	Dalton . . . . .	Hopkins.
Norton, Clifford . . . . .	Boston Station . . . . .	Pendleton.
Nunn, Ina . . . . .	Weston . . . . .	Crittenden.
Osborn, Willis . . . . .	Hudgins . . . . .	Green.
Osborne, Pray . . . . .	Keefer . . . . .	Grant.
Osburn, Daniel . . . . .	Albia . . . . .	Pulaski.
Overton, Waller . . . . .	Frankfort . . . . .	Franklin.
Parrent, Mildred . . . . .	Frankfort . . . . .	Franklin.
Parris, Millie . . . . .	Crab Orchard . . . . .	Lincoln.
Partin, Amanda . . . . .	Artemus . . . . .	Knox.
Partin, Ambrose . . . . .	Artemus . . . . .	Knox.
Paslay, Minnie . . . . .	Gilead . . . . .	Montgomery.
Payne, Clara . . . . .	Vertrus . . . . .	Hardin.
Pearce, Nannie . . . . .	Sherburne . . . . .	Fleming.
Perkins, Cecil . . . . .	Webbville . . . . .	Lawrence.
Petra, George . . . . .	Saxton . . . . .	Whitley.
Phillips, Grace . . . . .	Bonnieville . . . . .	Hart.
Phillips, Willie . . . . .	Louisville . . . . .	Jefferson.



## CATALOGUE OF PUPILS—WHITE—Continued.

NAME.	Post-office Address.	County.
Pierce, Nancy . . . . .	Artemus . . . . .	Knox.
Pilon, Roscoe . . . . .	Strunk . . . . .	Whitley.
Pool, Mary . . . . .	McDaniels . . . . .	Breckinridge.
Poor, Sidney . . . . .	Williamstown . . . . .	Grant.
Poulter, Ora . . . . .	Todd's Point . . . . .	Shelby.
Poulter, Pronetia . . . . .	Todd's Point . . . . .	Shelby.
Preston, Augustus . . . . .	Stithton . . . . .	Hardin.
Privett, Nannie . . . . .	Kingsville . . . . .	Lincoln.
Queen, Adah . . . . .	Lily . . . . .	Laurel.
Queen, John . . . . .	Lily . . . . .	Laurel.
Rader, Alpha . . . . .	Egypt . . . . .	Jackson.
Ramage, Minnie . . . . .	Annora . . . . .	Crittenden.
Ray, Gladdus . . . . .	Buckeye . . . . .	Garrard.
Reiss, Charles . . . . .	Louisville . . . . .	Jefferson.
Renner, George . . . . .	London . . . . .	Laurel.
Rogers, Elizabeth . . . . .	Benge . . . . .	Clay.
Roller, Amos . . . . .	Saxton . . . . .	Whitley.
Rudolf, Harvey . . . . .	Massack . . . . .	McCracken.
Ruggles, Annie . . . . .	Covington . . . . .	Kenton.
Saxier, Suette . . . . .	Skilesville . . . . .	Muhlenberg.
Schulta, Matthew . . . . .	Minta . . . . .	Graves.
Scott, Herman . . . . .	Kirksey . . . . .	Calloway.
Scott, Lloyd . . . . .	Kirksey . . . . .	Calloway.
Senn, Julius . . . . .	Louisville . . . . .	Jefferson.
Shackleford, Fannie . . . . .	Howardstown . . . . .	LaRue.
Sheffer, Thornly . . . . .	Corydon . . . . .	Henderson.
Shetzer, Isaac . . . . .	Louisville . . . . .	Jefferson.
Shook, Charles . . . . .	Louisville . . . . .	Jefferson.
Sims, Carrie . . . . .	Benton . . . . .	Marshall.
Sims, Louie . . . . .	Benton . . . . .	Marshall.
Singleton, Lulu . . . . .	Echols . . . . .	Ohio.
Sisk, Wat Hardin . . . . .	Madisonville . . . . .	Hopkins.
Smith, Asbury . . . . .	Scottsville . . . . .	Allen.
Smith, Florence . . . . .	Drip Rock . . . . .	Jackson.
Smith, Ida . . . . .	Drip Rock . . . . .	Jackson.
Smith, Jimmie . . . . .	Crockettsville . . . . .	Perry.
Smith, John . . . . .	Falmouth . . . . .	Pendleton.
Smith, John M. . . . .	Locust Branch . . . . .	Estill.
Smith, Martha . . . . .	Hammond . . . . .	Knox.
Smith, William . . . . .	Locust Branch . . . . .	Estill.
Snapp, Thomas . . . . .	Bar'ersville . . . . .	Nicholas.
Solinski, John . . . . .	Red Ash . . . . .	Whitley.
Sparks, Maud . . . . .	Iron Mound . . . . .	Estill.
Spencer, Olga . . . . .	Covington . . . . .	Kenton.
Sporing, Leonard . . . . .	Oneonta . . . . .	Campbell.
Squires, Clarence . . . . .	Fry . . . . .	Green.
Stadtlander, Susie . . . . .	Covington . . . . .	Kenton.
Stapleton, Harry . . . . .	Newport . . . . .	Campbell.
Stevens, Augustus . . . . .	Mayo . . . . .	Mercer.
Stroud, Maud . . . . .	Sebree . . . . .	Webster.
Sullivan, Flora . . . . .	White Mills . . . . .	Hardin.
Suttka, Charles . . . . .	Louisville . . . . .	Jefferson.
Swank, Harry . . . . .	Covington . . . . .	Kenton.
Taylor, George . . . . .	Louisville . . . . .	Jefferson.
Taylor, Joseph . . . . .	Grayson . . . . .	Carter.
Taylor, Lizzie . . . . .	Crossland . . . . .	Calloway.



## CATALOGUE OF PUPILS—WHITE—Continued.

NAME.	Post-office Address.	County.
Taylor, Mary . . . . .	Waco . . . . .	Madison.
Taylor, Merton . . . . .	Grayson . . . . .	Carter.
Taylor, Samuel . . . . .	Ludlow . . . . .	Kenton.
Tilford, Walter . . . . .	Cromwell . . . . .	Ohio.
Tingle, James . . . . .	Lockport . . . . .	Henry.
Toomey, William . . . . .	Richmond . . . . .	Madison.
Turner, Thomas . . . . .	Bourne . . . . .	Garrard.
Tyree, John . . . . .	Whitesburg . . . . .	Letcher.
Tyree, Joseph . . . . .	Whitesburg . . . . .	Letcher.
Utley, Willie . . . . .	Murray . . . . .	Calloway.
Vannort, Ozella . . . . .	Hodgensville . . . . .	LaRue.
Voelker, Grover Cleveland . . . . .	Athertonville . . . . .	LaRue.
Walker, Felix . . . . .	Cloverport . . . . .	Breckinridge.
Warmouth, Lovina . . . . .	Carrington . . . . .	Bath.
Webb, LeRoy . . . . .	Brownsville . . . . .	Edmondson.
Weidmar, Bertha . . . . .	East Bernstadt . . . . .	Laurel.
Weidmar, Martha . . . . .	East Bernstadt . . . . .	Laurel.
Welte, John . . . . .	Newport . . . . .	Campbell.
West, Thomas . . . . .	Winesap . . . . .	Hart.
Whalen, John . . . . .	Avena . . . . .	Harrison.
Whalen, Luther . . . . .	Robinson . . . . .	Harrison.
Wheeler, William G. . . . .	Ashland . . . . .	Boyd.
Wiley, Claud . . . . .	McBrayer . . . . .	Anderson.
Williams, Benard . . . . .	Belcourt . . . . .	Webster.
Williams, Carrie . . . . .	Calhoun . . . . .	McLean.
Williams, James . . . . .	Enterprise . . . . .	Carter.
Williams, Sylvester . . . . .	Calhoun . . . . .	McLean.
Wilson, Ellen . . . . .	Royalton . . . . .	Russell.
Wilson, Vigie . . . . .	Baizetown . . . . .	Ohio.
Wright, Leslie . . . . .	Frankfort . . . . .	Franklin.
Wright, Lottie . . . . .	Beelerton . . . . .	Fulton.
Yancy, Mollie . . . . .	Pleasant Home . . . . .	Owen.
Yarbrough, John . . . . .	Free Union . . . . .	Webster.
Young, Catherine . . . . .	Tousey . . . . .	Grayson.
Yowell, Annie . . . . .	Hustonville . . . . .	Lincoln.

## CATALOGUE OF PUPILS FROM NOV. 1, 1893, TO NOV. 1, 1895.

## COLORED DEPARTMENT.

NAME.	Post-office Address.	County.
Adams, Laura . . . . .	Bloomfield . . . . .	Nelson.
Barrett, Lucy . . . . .	Olympia . . . . .	Bath.
Bates, Lee. . . . .	Ford . . . . .	Clark.
Bibbs, William . . . . .	Henderson . . . . .	Henderson.
Board, Henry . . . . .	Hardinsburg . . . . .	Breckinridge.
Bright, Lena . . . . .	Crab Orchard . . . . .	Lincoln.
Brunty, Sallie . . . . .	LaFayette . . . . .	Christian.
Burdette, Ulysses . . . . .	Richmond . . . . .	Madison.
Burris, Ella . . . . .	Henderson . . . . .	Henderson.
Calvert, James. . . . .	Bloomfield . . . . .	Nelson.
Clay, Narcissa . . . . .	Jetts . . . . .	Franklin
Daniels, George . . . . .	Nicholasville . . . . .	Jessamine.
Downey, Frank . . . . .	Winchester . . . . .	Clark.
Dudley, John . . . . .	Louisville . . . . .	Jefferson.
Dunson, Fannie . . . . .	Kingston . . . . .	Madison.
Harris, Lillian. . . . .	Eddyville . . . . .	Lyon.
Henderson, George . . . . .	State Line . . . . .	Fulton.
Higgins, Ida. . . . .	Henderson . . . . .	Henderson.
Hobbs, Silas . . . . .	Bloomfield . . . . .	Nelson.
Holdman, Luella. . . . .	Louisville . . . . .	Jefferson.
Hughes, Bettie. . . . .	Pleasure Ridge Park . . . . .	Jefferson.
Ivey, Gideon . . . . .	. . . . .	Hopkins.
Johnson, Henry . . . . .	Mayslick . . . . .	Mason.
Jones, Cora . . . . .	Ewing. . . . .	Fleming.
Kennedy, William . . . . .	Lancaster . . . . .	Garrard.
McCann, John. . . . .	Lexington . . . . .	Fayette.
Marshall, Benjamin . . . . .	Bloomfield . . . . .	Nelson.
Martin, Charles . . . . .	Paris . . . . .	Bourbon.
Miles, Maggie . . . . .	Versailles . . . . .	Woodford.
Park, Ella. . . . .	Earles . . . . .	Muhlenberg.
Parrish, Mamie . . . . .	Bear Wallow . . . . .	Barren.
Pittman, Henry . . . . .	Frankfort . . . . .	Franklin.
Pool, Dennis . . . . .	Louisville . . . . .	Jefferson.
Ray, Louis . . . . .	Louisville . . . . .	Jefferson.
Ray, Thomas . . . . .	Lancaster . . . . .	Garrard.
Robinson, Lewis . . . . .	Lexington . . . . .	Fayette.
Royston, Azile. . . . .	Lowell . . . . .	Garrard.
Scott, William . . . . .	Louisville . . . . .	Jefferson.
Seals, Daisy . . . . .	Lexington . . . . .	Fayette.
Smith, Lena . . . . .	Lexington . . . . .	Fayette.
Smith, Page . . . . .	Carrollton . . . . .	Carroll.
Stone, Lucy . . . . .	Richmond . . . . .	Madison.
Thurman, George . . . . .	Ruby . . . . .	Green.
Thurman, James. . . . .	Ruby . . . . .	Green.
Thurman, Lizzie. . . . .	Ruby . . . . .	Green.
Thurman, Mary . . . . .	Ruby . . . . .	Green.
Thurman, William . . . . .	Ruby . . . . .	Green.
Trabue, Benjamin . . . . .	Louisville . . . . .	Jefferson.
Tee, Rice . . . . .	Carlsle . . . . .	Nicholas.
Tye, Sidney . . . . .	Carpenter . . . . .	Whitley.
Walker, Bertha . . . . .	Versailles . . . . .	Woodford.
Walker, Benjamin . . . . .	Nicholasville . . . . .	Jessamine.

## CATALOGUE OF PUPILS.

From the Commencement of the Institution to the Present Time—Continued  
from Last Report.

## WHITE DEPARTMENT.

Number . . . . .	NAME.	Post-office Address . . . .	County of Residence . . .	Date Admitted . . . . .
1088	Hampton, Harvey . . . .	Byron . . . . .	Clay . . . .	Dec. 3, 1893 . .
1089	Adenan, Frank . . . . .	Newport . . . .	Campbell . .	Dec. 4, 1893 . .
1090	Clark, Catherine . . . .	Frenchburg . . .	Menefee . .	Mar. 6, 1894 . .
1091	Smith, John M. . . . .	Locust Branch . .	Estill . . .	Mar. 15, 1894 . .
1092	Smith, W. H. . . . .	Locust Branch . .	Estill . . .	Mar. 15, 1894 . .
1093	Martin, Emma . . . . .	Dalton . . . . .	Hopkins . .	Mar. 31, 1894 . .
1094	Allen, Grace . . . . .	Dwale . . . . .	Floyd . . .	Sept. 6, 1894 . .
1095	Bartholomew, Hilda . . .	Newport . . . .	Campbell . .	Sept. 6, 1894 . .
1096	Baugh, Alice . . . . .	Somerset . . . .	Pulaski . . .	Mar. 12, 1895 . .
1097	Berlin, Ida . . . . .	Louisville . . . .	Jefferson . .	Sept. 15, 1894 . .
1098	Blair, Mary Prudence . . .	Louisville . . . .	Jefferson . .	Mar. 5, 1895 . .
1099	Bloom, John . . . . .	Wesleyville . . .	Carter . . .	Mar. 6, 1895 . .
1100	Bowman, Charles . . . .	Godman . . . . .	Muhlenberg .	Mar. 1, 1895 . .
1101	Brantley, Belle . . . . .	Repton . . . . .	Crittenden .	Sept. 6, 1894 . .
1102	Bruce, Everett . . . . .	Petersburg . . . .	Boone . . .	Dec. 18, 1894 . .
1103	Carter, Thomas . . . . .	Beattyville . . .	Lee . . . .	Sept. 15, 1894 . .
1104	Collins, Dennis . . . . .	Covington . . . .	Kenton . . .	Sept. 6, 1894 . .
1105	Conrad, George . . . . .	Henderson . . . .	Henderson . .	Sept. 6, 1894 . .
1106	Crawford, Etta . . . . .	Grayson . . . . .	Carter . . .	Sept. 6, 1894 . .
1107	Daniels, Melvina . . . . .	Quod . . . . .	Magoffin . .	Sept. 15, 1894 . .
1108	DeLong, Jerry . . . . .	Pleasant . . . . .	Martin . . .	Sept. 6, 1894 . .
1109	Disz, Ella . . . . .	Bellevue . . . . .	Kenton . . .	Sept. 6, 1894 . .
1110	Eldridge, Mary . . . . .	Evarts . . . . .	Harlan . . .	Feb. 28, 1895 . .
1111	Embry, Frances . . . . .	Lee . . . . .	Butler . . .	Mar. 1, 1895 . .
1112	Fields, Lalla . . . . .	Replay, Tenn. . .	Fulton, Ky. .	Dec. 15, 1894 . .
1113	Fugate, Jefferson . . . .	Avawam . . . . .	Perry . . .	Dec. 20, 1894 . .
1114	Hall, Annie . . . . .	Birdsville . . . .	Livingston . .	Sept. 6, 1895 . .
1115	Hamilton, Haley . . . . .	Beattyville . . .	Lee . . . .	Sept. 15, 1894 . .
1116	Harrell, Ernest . . . . .	Pritchard . . . .	Graves . . .	Sept. 15, 1894 . .
1117	Haskins, Dellie . . . . .	Lockport . . . . .	Henry . . .	Sept. 15, 1894 . .
1118	Holiday, Maud . . . . .	Maysville . . . .	Mason . . .	Sept. 15, 1894 . .
1119	Honicon, Leslie . . . . .	Cynthiana . . . .	Harrison . . .	Sept. 6, 1894 . .
1120	Ishmael, Charles . . . . .	Carlisle . . . . .	Nicholas . .	Sept. 6, 1894 . .
1121	Jones, Viola . . . . .	Covington . . . .	Kenton . . .	Sept. 15, 1894 . .
1122	Kabler, Early . . . . .	Side View . . . .	Montg'm'ry .	Dec. 12, 1894 . .
1123	Kennedy, Lida . . . . .	Troy . . . . .	Woodford . .	Mar. 9, 1895 . .
1124	Kessinger, Adam . . . . .	Gilstrap . . . . .	Butler . . .	Mar. 1, 1895 . .

## CATALOGUE OF PUPILS.

From the Commencement of the Institution to the Present Time—Continued  
from Last Report.

## WHITE DEPARTMENT—Continued.

Deafness—Cause . . . .	Age—When . . . .	Deaf Relatives . . . .	Consanguinity of Parents..
Cold . . . . .	. . . . .	. . . . .	
Whooping Cough . . . .	5 years . . . .	Mother partially . . . .	
Congenital . . . . .	. . . . .	Brother and others . . . .	
Congenital . . . . .	. . . . .	Brother and others . . . .	
Congenital . . . . .	. . . . .	. . . . .	
Congenital . . . . .	. . . . .	. . . . .	
. . . . .	. . . . .	. . . . .	
. . . . .	2 years . . . .	. . . . .	Second cousins.
Inflammation of head . .	18 months . . . .	. . . . .	
Congenital . . . . .	. . . . .	. . . . .	Second cousins.
Congenital . . . . .	. . . . .	. . . . .	
Congenital . . . . .	. . . . .	One second cousin . . . .	
La grippe . . . . .	14 years . . . .	. . . . .	
. . . . .	. . . . .	. . . . .	
Congenital . . . . .	. . . . .	. . . . .	
Fever . . . . .	6 years . . . .	. . . . .	Cousins.
Congenital . . . . .	. . . . .	. . . . .	Yes.
Typhoid fever . . . . .	1 year . . . .	. . . . .	
. . . . .	. . . . .	. . . . .	First cousins.
. . . . .	. . . . .	. . . . .	
Spinal meningitis . . . .	8 years . . . .	. . . . .	
Congenital . . . . .	. . . . .	. . . . .	
. . . . .	3 years . . . .	. . . . .	
Catarrh . . . . .	9 years . . . .	. . . . .	
Brain fever . . . . .	15 months . . . .	. . . . .	
Cholera infantum . . . .	1 year . . . .	. . . . .	
Brain fever . . . . .	3 years . . . .	. . . . .	
Pneumonia . . . . .	2 years . . . .	Father . . . . .	
Scrofula . . . . .	1 year . . . .	. . . . .	
Congenital . . . . .	. . . . .	Sister . . . . .	

## CATALOGUE OF PUPILS.

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## WHITE DEPARTMENT—Continued.

Number . . . . .	NAME.	Post-office Address . . . .	County of Residence . . .	Date Admitted . . . . .
1125	Kessinger, Eva . . . . .	Gilstrap . . . . .	Butler . . .	Mar. 1, 1895 . .
1126	Lamb, Preston . . . . .	Iron Hill . . . .	Crittenden .	Mar. 1, 1895 . .
1127	McDonald, Moses . . . .	Frankfort . . . .	Franklin . .	Sept. 1, 1894 . .
1128	McIntosh, Abijah . . . .	Crockettsville . .	Breathitt . .	Dec. 6, 1894 . .
1129	McIntosh, Rosetta . . . .	Crockettsville . .	Breathitt . .	Dec. 12, 1894 . .
1130	Moore, Melvin . . . . .	Musie . . . . .	Carter . . .	Sept. 15, 1894 . .
1131	Mullins, Della . . . . .	Maggard . . . .	Letcher . . .	Feb. 28, 1895 . .
1132	Noll, Peter . . . . .	Crescent Springs .	Kenton . . .	Sept. 6, 1894 . .
1133	Norton, Clifford . . . .	Boston Station . .	Pendleton . .	Feb. 18, 1895 . .
1134	Osburn, Daniel . . . . .	Albia . . . . .	Pulaski . . .	Sept. 15, 1894 . .
1135	Parrent, Mildred . . . .	Frankfort . . . .	Franklin . .	Sept. 6, 1894 . .
1136	Pilon, Rescoe . . . . .	Strunks . . . . .	Whitley . . .	Sept. 6, 1894 . .
1137	Reiss, Charles . . . . .	Louisville . . . .	Jefferson . .	Sept. 6, 1894 . .
1138	Shackleford, Fannie . . .	Howardstown . . .	LaRue . . .	Sept. 6, 1894 . .
1139	Shetzer, Isaac . . . . .	Louisville . . . .	Jefferson . .	S. pt. 6, 1894 . .
1140	Sims, Louie . . . . .	Benton . . . . .	Marshall . .	Jan. 10, 1895 . .
1141	Singleton, Lulu . . . . .	Echols . . . . .	Ohio . . . .	Jan. 10, 1895 . .
1142	Smith, Asbury . . . . .	Scottsville . . . .	Allen . . . .	Feb. 1, 1895 . .
1143	Smith, Jimmie . . . . .	Crockettsville . .	Breathitt . .	Dec. 6, 1894 . .
1144	Sparks, Maud . . . . .	Iron Mound . . . .	Estill . . . .	Sept. 6, 1894 . .
1145	Squires, Clarence . . . .	Fry . . . . .	Green . . . .	Sept. 6, 1894 . .
1146	Stevens, Gus . . . . .	Mayo . . . . .	Mercer . . .	Dec. 15, 1894 . .
1147	Taylor, Mary . . . . .	Waco . . . . .	Madison . . .	Sept. 6, 1894 . .
1148	Vannort, Ozella . . . . .	Hodgensville . . .	LaRue . . .	Sept. 6, 1894 . .
1149	Warmouth, Lovina . . . .	Carrington . . . .	Menifee . . .	Dec. 12, 1894 . .
1150	Welte, John . . . . .	Newport . . . . .	Campbell . .	Sept. 15, 1894 . .
1151	West, Thomas . . . . .	Winesap . . . . .	Hart . . . .	Sept. 15, 1894 . .
1152	Whalen, John . . . . .	Avena . . . . .	Harrison . . .	Sept. 6, 1894 . .
1153	Williams, James . . . . .	Enterprise . . . .	Carter . . . .	Dec. 12, 1894 . .
1154	Adams, Emma . . . . .	Rowland . . . . .	Lincoln . . .	Sept. 5, 1895 . .
1155	Bayers, Anna . . . . .	Louisville . . . .	Jefferson . .	Oct. 29, 1895 . .
1156	Blankenship, Alice . . . .	Maplesville . . . .	Laurel . . . .	Sept. 5, 1895 . .
1157	Blessing, Ina . . . . .	Carrollton . . . .	Carroll . . .	Sept. 5, 1895 . .
1158	Boner, William . . . . .	Schuler . . . . .	Pendleton . .	Sept. 5, 1895 . .
1159	Burton, William . . . . .	Inez . . . . .	Martin . . . .	Sept. 30, 1895 . .
1160	Cahill, Nellie . . . . .	North Fork . . . .	Mason . . . .	Oct. 1, 1895 . .
1161	Carpenter, Harley . . . .	Ezel . . . . .	Morgan . . .	Sept. 5, 1895 . .



## CATALOGUE OF PUPILS.

From the Commencement of the Institution to the Present Time—Continued  
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## WHITE DEPARTMENT—Continued.

Deafness—Cause . . . . .	Age—When . . . . .	Deaf Relatives . . . . .	Consanguinity of Parents .
Scrofula . . . . .	16 months .	Brother . . . . .	Yes. Yes. Yes.
Measles . . . . .	3 years . .		
Congenital . . . . .		Cousin and sister . .	
Congenital . . . . .		Sister and cousin . .	
Congenital . . . . .			
Diphtheria . . . . .	8 months .		
Congenital . . . . .			
Rising in head . . . . .	2 years . .		Yes.
Measles . . . . .	15 months .		
Congenital . . . . .			
Congenital . . . . .			
Typhoid fever . . . . .	3 years . .		Yes.
Scarlet fever . . . . .	2 years . .		
Congenital . . . . .		2 cousins . . . . .	
Scarlet fever . . . . .	2 years . .		
Congenital . . . . .			
Congenital . . . . .		Several cousins . . .	
Congenital . . . . .			
Rising in head . . . . .	2 years . .		
Spinal meningitis . . . . .	1 year . .		
Rising in head . . . . .	19 months .		
Congenital . . . . .		Some cousins . . . .	Third cousins.
Congenital . . . . .		1 second cousin . . .	
Scarlet fever . . . . .	3 years . .		
Typhoid fever . . . . .	10 months .		
Brain fever . . . . .	7 years . .	Mother partially . .	
	6 years . .		

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## WHITE DEPARTMENT—Continued.

Number . . . . .	NAME.	Post-office Address . . . . .	County of Residence . . . . .	Date Admitted . . . . .
1162	Clark, Joseph . . . . .	Berlin . . . . .	Bracken . . . . .	Sept. 5, 1895 . . . . .
1163	Clore, Irvine . . . . .	Constance . . . . .	Boone . . . . .	Oct. 28, 1895 . . . . .
1164	Darkie, Albert . . . . .	Louisville . . . . .	Jefferson . . . . .	Oct. 19, 1895 . . . . .
1165	Desha, Benjamin . . . . .	Cynthiana . . . . .	Harrison . . . . .	Sept. 5, 1895 . . . . .
1166	Dehart, Arthur . . . . .	Martinsburg . . . . .	Elliott . . . . .	Sept. 5, 1895 . . . . .
1167	Engle, Nancy . . . . .	Hazard . . . . .	Perry . . . . .	Oct. 10, 1895 . . . . .
1168	Engle, Poppea . . . . .	Hazard . . . . .	Perry . . . . .	Oct. 10, 1895 . . . . .
1169	Engle, Susan . . . . .	Hazard . . . . .	Perry . . . . .	Oct. 10, 1895 . . . . .
1170	Easterling, Netta . . . . .	Elamton . . . . .	Morgan . . . . .	Sept. 5, 1895 . . . . .
1171	Elliott, Mattie . . . . .	Stewart . . . . .	Washington . . . . .	Sept. 5, 1895 . . . . .
1172	Fields, John . . . . .	Evarts . . . . .	Harlan . . . . .	Sept. 5, 1895 . . . . .
1173	Freeman, Ida . . . . .	Beattyville . . . . .	Lee . . . . .	Sept. 15, 1895 . . . . .
1174	Grayson, John . . . . .	Neatsburg . . . . .	Adair . . . . .	Sept. 5, 1895 . . . . .
1175	Groom, Perry . . . . .	Wickliffe . . . . .	Ballard . . . . .	Sept. 20, 1895 . . . . .
1176	Hall, Lucy . . . . .	Fenwick . . . . .	Washington . . . . .	Sept. 5, 1895 . . . . .
1177	Helton, Josephine . . . . .	Wallins Creek . . . . .	Harlan . . . . .	Oct. 21, 1895 . . . . .
1178	Hickey, James . . . . .	Bessie, Tenn . . . . .	Fulton, Ky. . . . .	Oct. 29, 1895 . . . . .
1179	Holland, Lewis . . . . .	Calvert City . . . . .	Marshall . . . . .	Oct. 29, 1895 . . . . .
1180	Iglehart, Fleming . . . . .	Morgantown . . . . .	Butler . . . . .	Sept. 5, 1895 . . . . .
1181	Jenkins, Herbert . . . . .	Tilden . . . . .	Webster . . . . .	Sept. 5, 1895 . . . . .
1182	Manning, William . . . . .	Birmingham . . . . .	Marshall . . . . .	Oct. 29, 1895 . . . . .
1183	McCubbins, Emma . . . . .	Belmont . . . . .	Bullitt . . . . .	Sept. 5, 1895 . . . . .
1184	Maggio, John . . . . .	Louisville . . . . .	Jefferson . . . . .	Sept. 15, 1895 . . . . .
1185	Moss, Dock . . . . .	Owensboro . . . . .	Daviess . . . . .	Oct. 31, 1895 . . . . .
1186	Mobley, Thomas . . . . .	Rowland . . . . .	Lincoln . . . . .	Sept. 5, 1895 . . . . .
1187	Mocabee, Fred . . . . .	Elliottville . . . . .	Rowan . . . . .	Oct. 14, 1895 . . . . .
1188	Moore, Fred . . . . .	Honeywell . . . . .	Carter . . . . .	Sept. 5, 1895 . . . . .
1189	Noble, Fayette . . . . .	Jackson . . . . .	Breathitt . . . . .	Sept. 5, 1895 . . . . .
1190	Nunn, Ina . . . . .	Weston . . . . .	Crittenden . . . . .	Sept. 5, 1895 . . . . .
1191	Paslay, Minnie . . . . .	Gilead . . . . .	Montg'm'ry . . . . .	Sept. 30, 1895 . . . . .
1192	Ramage, Minnie . . . . .	Annora . . . . .	Crittenden . . . . .	Sept. 5, 1895 . . . . .
1193	Schulta, Mathew . . . . .	Minta . . . . .	Graves . . . . .	Sept. 5, 1895 . . . . .
1194	Scott, Herman . . . . .	Kirksey . . . . .	Calloway . . . . .	Sept. 5, 1895 . . . . .
1195	Scott, Lloyd . . . . .	Kirksey . . . . .	Calloway . . . . .	Sept. 5, 1895 . . . . .
1196	Sims, Carrie . . . . .	Benton . . . . .	Marshall . . . . .	Sept. 24, 1895 . . . . .
1197	Sisk, Wat Hardin . . . . .	Madisonville . . . . .	Hopkins . . . . .	Sept. 5, 1895 . . . . .
1198	Smith, Florence . . . . .	Drip Rock . . . . .	Jackson . . . . .	Sept. 5, 1895 . . . . .

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From the Commencement of the Institution to the Present Time—Continued  
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## WHITE DEPARTMENT—Continued.

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## CATALOGUE OF PUPILS.

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## WHITE DEPARTMENT—Continued.

Number . . . . .	NAME.	Post-office Address . . . . .	County of Residence . . . . .	Date Admitted . . . . .
1199	Smith, Ida . . . . .	Drip Rock . . . . .	Jackson . . . . .	Sept. 5, 1895 . . . . .
1200	Smith, Martha . . . . .	Hammonds . . . . .	Knox . . . . .	Sept. 5, 1895 . . . . .
1201	Stroud, Maggie . . . . .	Sebree . . . . .	Webster . . . . .	Sept. 5, 1895 . . . . .
1202	Swank, Harry H. . . . .	Covington . . . . .	Kenton . . . . .	Oct. 1, 1895 . . . . .
1203	Taylor, Lizzie . . . . .	Crossland . . . . .	Calloway . . . . .	Sept. 5, 1895 . . . . .
1204	Tingle, James . . . . .	Lockport . . . . .	Henry . . . . .	Oct. 31, 1895 . . . . .
1205	Tyree, Joseph . . . . .	Whitesburg . . . . .	Letcher . . . . .	Sept. 5, 1895 . . . . .
1206	Tyree, John . . . . .	Whitesburg . . . . .	Letcher . . . . .	Sept. 5, 1895 . . . . .
1207	Utley, William . . . . .	Murray . . . . .	Calloway . . . . .	Sept. 5, 1895 . . . . .
1208	Wiley, Claud . . . . .	McBrayer . . . . .	Anderson . . . . .	Oct. 31, 1895 . . . . .
1209	Wright, Lottie . . . . .	Beelerton . . . . .	Fulton . . . . .	Sept. 5, 1895 . . . . .

## CATALOGUE OF PUPILS.

From the Commencement of the Institution to the Present Time—Continued  
from Last Report.

## WHITE DEPARTMENT—Continued.

Deafness—Cause . . . .	Age—When . . . . .	Deaf Relatives . . . . .	Consanguinity of Parents .
. . . . .	. . . . .	Yes . . . . .	Yes.
. . . . .	. . . . .	Yes . . . . .	
. . . . .	4 months . . . . .	. . . . .	
Catarrh . . . . .	2 years . . . . .	. . . . .	
. . . . .	. . . . .	. . . . .	
Typhoid fever . . . . .	2 years . . . . .	. . . . .	
Typhoid fever . . . . .	4 years . . . . .	. . . . .	
Fever . . . . .	3½ years . . . . .	. . . . .	
. . . . .	. . . . .	. . . . .	



## CATALOGUE OF PUPILS.

From the Commencement of the Institution to the Present Time—Continued  
from Last Report.

## COLORED DEPARTMENT.

Number . . . . .	NAME.	Post-office Address . . . .	County of Residence . . .	Date Admitted . . . . .
78	Higgins, Ida . . . . .	Henderson . . .	Henderson .	—, 1894 . .
79	Calvert, James . . . . .	Bloomfield . . .	Nelson . .	Feb. 1, 1895 . .
80	Clay, Narcissa . . . . .	Jett's . . . . .	Franklin . .	Sept. 15, 1894 . .
81	Marshall, Benjamin . . . . .	Bloomfield . . .	Nelson . .	Feb. 1, 1895 . .
82	Martin, Charles . . . . .	Paris . . . . .	Bourbon . .	Sept. 15, 1894 . .
83	Park, Ella . . . . .	Earles . . . . .	Muhlenberg	Sept. 15, 1894 . .
84	Parrish, Mamie . . . . .	Bear Wallow . .	Barren . .	Feb. 1, 1895 . .
85	Ray, Thomas . . . . .	Lancaster . . .	Garrard . .	Sept. 6, 1894 . .
86	Smith, Lena . . . . .	Lexington . . .	Fayette . .	Sept. 6, 1894 . .
87	Walker, Benjamin . . . . .	Nicholasville . .	Jessamine .	Sept. 6, 1894 . .
88	Barrett, Lucy . . . . .	Olympia . . . .	Bath . . .	Oct. 30, 1895 . .
89	Brunty, Sallie . . . . .	LaFayette . . .	Christian .	Sept. 5, 1895 . .
90	Burdette, Ulysses . . . . .	Richmond . . .	Madison . .	Oct. 1, 1895 . .
91	Harris, Lillian . . . . .	Eddyville . . .	Lyon . . .	Sept. 5, 1895 . .
92	Hughes, Bettie . . . . .	Pleasure Ridge Park . . . . .	Jefferson . .	Oct. 1, 1895 . .
93	Robinson, Lewis . . . . .	Lexington . . .	Fayette . .	Oct. 14, 1895 . .
94	Stone, Lucy . . . . .	Richmond . . .	Madison . .	Sept. 5, 1895 . .

CATALOGUE OF PUPILS.

From the Commencement of the Institution to the Present Time—Continued  
from Last Report.

COLORED DEPARTMENT—Continued.

Deafness—Cause . . . .	Age—When . . . . .	Deaf Relatives . . . . .	Consanguinity of Parents .
. . . . .	. . . . .	. . . . .	
A fall . . . . .	2 years . . . . .	. . . . .	
Spinal meningitis . . . . .	3 years . . . . .	. . . . .	
Rising in head. . . . .	. . . . .	. . . . .	
. . . . .	. . . . .	. . . . .	
. . . . .	. . . . .	. . . . .	
Rising in head. . . . .	6 months . . . . .	One uncle . . . . .	
Concussion of cannon . . . . .	2 years . . . . .	. . . . .	
. . . . .	. . . . .	. . . . .	
. . . . .	. . . . .	. . . . .	
. . . . .	. . . . .	. . . . .	

## RULES, TERMS OF ADMISSION, ETC.

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1. The Institution is made free to all children residing in Kentucky, whose hearing is so impaired as to prevent their being taught in the ordinary public schools. Board, tuition books, medical attendance, etc., in short everything, is furnished except clothing and traveling expenses. This much is expected of the parent, which in most cases can be done by a little economy and self-denial. Clothing should be plain, substantial and warm, and each article marked plainly before sending the child to us. The best way to mark the larger articles is to sew the name in with some fast color.

2. The proper age for admission is eight years, and none will be received under that age or over twenty-one without special action upon the part of the Board of Commissioners.

3. The applicant for admission must be of sound mind and free from such chronic diseases as would prevent study.

4. The time allowed by law is ten years, but in no case will a child be kept at the Institution after it is fully ascertained that he can make no further progress in his studies.

5. The school session lasts just forty weeks, beginning the first Wednesday in September. A pupil entering school at any time during the year is expected to remain until the session closes, without some very good reason. Nothing so interrupts the work and tends to demoralize the classes as taking a pupil from School in the spring before the session closes. *Any pupil taken home during the session, without permission of the Board of Commissioners, forfeits the privilege of attending the School thereafter.*

6. It is important that all pupils should enter school at the beginning of the session. If a pupil comes in late he is necessarily behind his class and not only does little good himself but also prevents the class from making the progress it should by

dividing the time of the teacher. See to it that your child comes promptly at the opening of the session and give him a fair start with the others.

7. Boys are put at trades as soon as they have discretion enough to enable them to handle tools without danger. In selecting a trade we always, as far as possible, consult the individual taste and talent of the boy, and the wishes of the parents.

8. All pupils are required to work at some sort of manual labor from two and a half to three hours per day, and there is no deviation from this rule except in cases of absolute physical disability, which are very rare. The tasks of the smaller children are, of course, very light, but system and regularity are enforced from the very beginning.

9. Parents can hear from their children weekly by depositing fifty cents with the Superintendent to pay for postage. All letters on business should be directed to the Superintendent. Letters to the pupils should be directed to -----

*Kentucky School for the Deaf,  
Danville, Ky.*

10. A deposit of five dollars at the beginning of each session is required of all, to be used as a contingent fund in paying for damage to property, incidental expenses, etc. Any unexpended balance will be returned at the end of the session.

11. All money for the use of the pupils should be sent directly to the Superintendent.

12. While we are always glad to have the parents and friends of the pupils visit us, they can not be entertained at the School. Please remember this when you bring your child, or come to see him.

Any further information can be had by addressing

JOHN E. RAY, *Superintendent*,  
Danville, Ky.





Legislative Document No. 12.

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REPORT

—OF THE—

KENTUCKY INSTITUTION

—FOR—

FEEBLE-MINDED CHILDREN,

—TO THE—

GOVERNOR OF KENTUCKY,



OCTOBER 1, 1895.

---

PROPERTY OF THE STATE OF KENTUCKY.

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FRANKFORT, KY.:

PRINTED BY THE CAPITAL PRINTING CO.

1895.



## OFFICERS OF THE INSTITUTION.

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### BOARD OF COMMISSIONERS.

GRANT GREEN, *President*,  
JUDGE THOS. HINES,  
S. C. BULL,  
MARVIN AVERILL,  
LOUIS MANGAN,  
PHILIP H. CARPENTER,  
COLBY H. TAYLOR,  
JOHN L. CHURCH,  
DR. V. KALTENBRUN.

### SECRETARY.

MISS MARY PAGE.

### TREASURER.

A. W. OVERTON.

### SUPERINTENDENT.

J. T. BERRY, M. D.

### STEWARD.

C. J. CECIL.

### MATRON.

MRS. J. T. BERRY.



## EDUCATIONAL DEPARTMENT.

---

### TEACHERS.

MISS CAMILLA BASKETT,  
MISS MINNIE BELL,  
MISS EMILY WOODS,  
MISS SALLIE CHINN,

### INDUSTRIAL DEPARTMENT.

#### FOREMAN OF SHOPS.

JOHN D. O'CONNOR.

#### TEACHER SEWING CLASS.

MISS HALLIE ALEXANDER.

#### GARDENER.

MASON PARKER.

#### ENGINEER.

HENRY WILSON.

#### SUPERVISOR OF BOYS.

GEORGE TALBOTT.





## REPORT OF BOARD OF COMMISSIONERS.

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FRANKFORT, KY., October 25, 1895.

HON. JOHN YOUNG BROWN, *Governor of Kentucky* :

By direction of the Board of Commissioners of the Kentucky Institution for the Education and Training of Feeble-minded Children, I have the honor to report that the financial management of the Institution for the year ending September 30, 1895, has been successful and satisfactory. For a statement of the number of pupils at the close of the year, and its general management in all its departments, I refer you to the report of the Superintendent, Dr. J. T. Berry, which has been read to and approved by the Board. The Superintendent has been energetic and faithful in his work for the success of the school, and with the close attention and co-operation of the Commissioners the results have been satisfactory, with a management on principles of the strictest economy consistent with the best interests of the Institution.

I herewith inclose the report of A. W. Overton, the Treasurer, showing the receipts for the fiscal year to be \$23,779.92, and expenditures \$24,237.33, and deficit of \$457.41, which would not have existed but for the fact that the warrants of the Auditor were not paid when issued, and arrangements had to be made to cash them less a reserve of five per cent., with an agreement that when they are paid by the State the bank will only receive six per cent. for the time the loan runs. Without this arrangement it would have been necessary to suspend the operations of the school. Should the Treasurer resume payment by the first of January next, which he confidently expects to do, a considerable amount of the five per cent. reserved

will be paid to the Institution. If the regular payments due by the State had been made when due, the accounts of the year would have been closed with a small surplus instead of a deficit.

The Board have not yet received a statement from the Steward, showing the disbursements for the year, and the purposes for which they are made. As soon as it is received it will be forwarded to you.

It is the pleasure of the Board to say that the Institution is in a prosperous condition, and is accomplishing the work for which it was organized, both in its Educational and Mechanical Departments, and they trust that it will be sustained and fostered by the State as one of its best and noblest charities.

Respectfully,

GRANT GREEN,

*President of the Board of Commissioners.*

## REPORT OF SUPERINTENDENT.

---

*His Excellency, JOHN YOUNG BROWN, Governor :*

The management of the trust with which I am charged, has profoundly impressed me with the importance of the great charity so well endowed by the State, and that through a modification and reorganization of this especial charity are ultimately to be wrought great results in the elevation and development of the future races of men—by the elimination of mental defectives from a free independent and contaminating citizenship.

In making this, my report for the fiscal year ending September 30th, 1895, I would affirm that the policy of economics indicated in my preceding report has been faithfully enforced, and the Institution managed with a view strictly to its educational features, the physical and mental developments of the defectives entrusted to its care, and this by a relative inspection of expenses will be found to have been accomplished at a large reduction in operating expenses of the Institution for the year just passed, over that of former years.

There are at this time one hundred and fourteen children enrolled as pupils of the Institution—fifty-six of whom are girls and fifty-eight boys—twenty-seven of this number have been admitted during the year—nine girls and eighteen boys. Within the fiscal year nine pupils have been removed from the Institution. Two as “non-improvable” have been returned, as the law directs, to the counties from whence they came. Two by death, the one of consumption, the other of apoplexy in an epileptic seizure. The other five, one girl and four boys, having been kept as long as in the language of the law was “profitable to themselves or the State.” The girl has been returned

through the Judge of Garrard county to her father, who is able to provide for her. She is about eighteen years of age, and has been taught fair knowledge of arithmetic and geography, and to read and write quite well, and under control will make a competent domestic. One of these four boys, not especially efficient in anything, though seven years in the Institution, and himself in his twenty-third year, still he is, to a large degree, useful, and was through the judge of Campbell county given to the custody of his mother. The other three are competent to make their own support, two as broom-makers, the other as garden hand, and were returned to their parents.

A graded system of instruction has been adopted in the school department greatly beneficial to the pupils of the Institution and in every way eminently satisfactory.

The management of the industrial departments have been most commendable, and the industrial heads of these departments, the seamstress, the gardener, and foreman of shops deserve the plaudit "well done, good and faithful," and I hereby, beg your indulgence, to extend to them my high appreciation of their fidelity and skill.

Again, under the blessings of Providence, with thankful heart, it is my fortune to make this, my report, showing that health and prosperity have attended the Institution over which I have the honor to preside.

Most respectfully submitted,

J. T. BERRY, *Superintendent.*



## TREASURER'S REPORT.

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### Treasurer's Report of the Kentucky Institution for Feeble-Minded Children for Fiscal Year of 1894-95.

1894.		RECEIPTS.	
October.	Broom and mattress shop . . . . .		\$107 43
	Shoe shop . . . . .		36 95
	Pay pupils . . . . .		50 00
November.	Broom and mattress shop . . . . .		28 85
	Shoe shop . . . . .		2 25
	Treasurer of State. . . . .		5,472 98
	Pay pupils . . . . .		28 00
December.	Treasurer of State. . . . .		1,875 00
	Broom and mattress shop . . . . .		89 05
	Shoe shop . . . . .		39 45
	Pay pupils . . . . .		97 50
1895.			
January.	Broom and mattress shop . . . . .		28 65
	Pay pupils . . . . .		12 50
February.	Broom and mattress shop . . . . .		95 01
	Shoe shop . . . . .		3 44
	Auditor's warrant . . . . .	\$3,607 17	
	Discount . . . . .	180 36	
	Treasurer of State. . . . .	<u>          </u>	3,426 81
	Auditor's warrant . . . . .	\$1,875 00	
	Discount . . . . .	93 75	
	Treasurer of State. . . . .	<u>          </u>	1,781 25
March.	Broom and mattress shop . . . . .		22 85
	Shoe shop . . . . .		8 30
	Pay pupils . . . . .		75 00
April.	Broom and mattress shop . . . . .		68 30
	Shoe shop . . . . .		25
	Pay pupils . . . . .		68 50
	Auditor's warrant . . . . .	\$3,886 06	
	Discount . . . . .	194 30	
May.	Treasurer of State . . . . .	<u>          </u>	3,691 76
	Broom and mattress shop . . . . .		29 92
	Shoe shop . . . . .		6 60
	Sale of stock . . . . .		25 00
June.	Broom and mattress shop . . . . .		157 00
	Pay pupils . . . . .		25 00
July.	Sale of stock . . . . .		16 00
	Broom and mattress shop . . . . .		209 60

July.	Shoe shop . . . . .	\$ 60
	Pay pupils . . . . .	12 50
	Treasurer of State. . . . .	1,875 00
	Treasurer of State. . . . .	4,029 68
August.	Broom and mattress shop . . . . .	10 24
	Sale of stock . . . . .	24 00
	Pay pupils . . . . .	37 50
September.	Broom and mattress shop . . . . .	123 70
	Pay pupils . . . . .	87 50
Sept. 30.	Balance . . . . .	457 41
		<u>\$24,237 33</u>

1894.

## DISBURSEMENTS.

September 30.	Balance . . . . .	\$375 76
October.	Total disbursements . . . . .	898 09
November.	Total disbursements . . . . .	2,716 20
December.	Total disbursements . . . . .	3,441 72

1895.

January.	Total disbursements . . . . .	72 44
February.	Total disbursements . . . . .	3,938 69
March.	Total disbursements . . . . .	1,974 84
April.	Total disbursements . . . . .	2,527 13
May.	Total disbursements . . . . .	1,586 23
June.	Total disbursements . . . . .	1,830 56
July.	Total disbursements . . . . .	1,789 63
August.	Total disbursements . . . . .	1,305 79
September.	Total disbursements . . . . .	1,780 25
		<u>\$24,237 33</u>

Total disbursements . . . . .	\$24,237 33
Total receipts . . . . .	23,779 92
	<hr/>
	\$457 41

Receipts from Treasurer of State . . . . .	\$22,152 48
Receipts from broom and mattress shops . . . . .	970 60
Receipts from shoe shop . . . . .	97 84
Receipts from pay pupils . . . . .	494 00
Receipts from sale of live stock . . . . .	65 00
	<hr/>
	\$23,779 92

The foregoing report of the receipts and disbursements of the Kentucky Institute for Feeble-Minded Children for the fiscal year of 1894-5, is most respectfully submitted to the Honorable Board of Commissioners.

A. W. OVERTON, *Treasurer.*

## STEWARD'S REPORT.

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### Expenditures of the Kentucky Institute for Feeble-Minded Children for the Year Ending September 30, 1895.

Pay-Roll, { Salaries. . . . .	\$2,500 00
Wages. . . . .	7,655 60
Breadstuff . . . . .	618 97
Building and repairs. . . . .	1,034 78
Books, stationery and printing. . . . .	88 44
Clothing. . . . .	283 95
Drugs and medicines . . . . .	211 78
Dry goods . . . . .	573 17
Expenses on live stock. . . . .	643 65
Fuel. . . . .	1,226 30
Furniture, household and kitchen. . . . .	127 57
Funeral expenses . . . . .	30 00
Farm expenses . . . . .	33 20
Groceries . . . . .	2,335 41
Ice. . . . .	85 86
Turnpike . . . . .	15 00
Lights . . . . .	407 85
Hardware . . . . .	142 43
Machine oil. . . . .	8 40
Water . . . . .	163 45
Meats, including fowls, fish and game. . . . .	1,393 62
Telegraph and telephone. . . . .	37 25
Spirituos liquors. . . . .	85 05
Soap. . . . .	40 50
Fruits . . . . .	14 25
Vehicles, tools and implements for farm and garden . . . . .	248 90
Shoe shop . . . . .	259 84
Broom and mattress shop . . . . .	772 83
Postage, express and freight . . . . .	101 88
Payment on note, balance on building. . . . .	853 81
Horse and buggy hire by R. Tobin, in 1887 . . . . .	8 00
Christmas toys . . . . .	4 17
Music . . . . .	3 79
	<hr/>
	\$22,009 70
	<hr/>

C. J. CECIL, *Steward.*



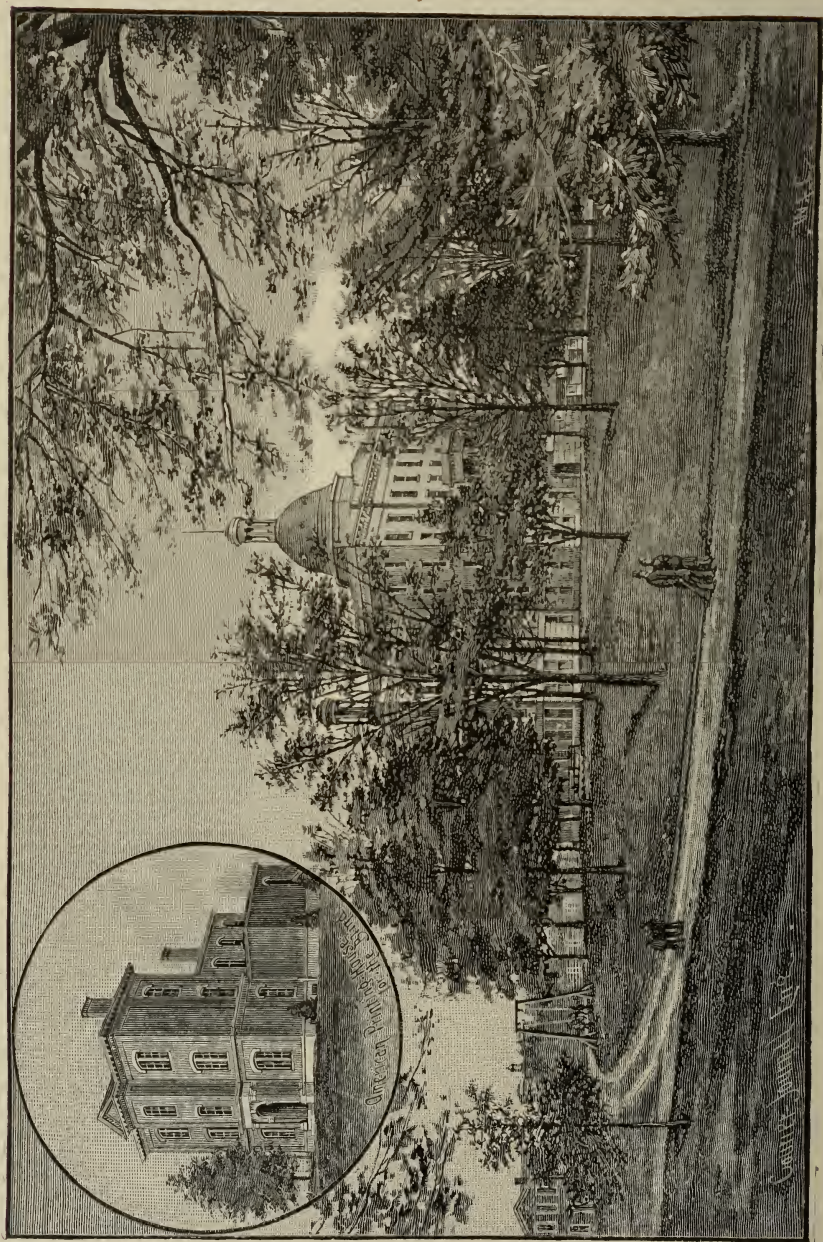






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KENTUCKY INSTITUTION FOR THE BLIND.



Legislative Document No. 13.

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REPORT

—OF THE—

KENTUCKY INSTITUTION

—FOR THE—

EDUCATION OF THE BLIND,

AT LOUISVILLE, KY.

FOR THE YEAR ENDING OCTOBER 31, 1895.

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*PROPERTY OF THE STATE OF KENTUCKY.*

---

FRANKFORT, KY.:

PRINTED BY THE CAPITAL PRINTING CO.  
1895.





LOUISVILLE, November 13, 1895.

*To His Excellency, JOHN YOUNG BROWN,*

*Governor of the Commonwealth of Kentucky :*

HONORED SIR: The accompanying report has been read and approved, and formally adopted by the Board of Visitors of the Kentucky Institution for the Education of the Blind, as their regular annual report to you and the General Assembly.

With sentiments of the highest esteem, it is respectfully submitted on behalf of the Board of Visitors.

JAMES S. PIRTLE,  
*President of the Board of Visitors.*



# OFFICERS AND TEACHERS

OF THE

## *Kentucky Institution for the Education of the Blind.*

---

### **Board of Visitors.**

HON. JAMES S. PIRTLE, *President*.  
ROBERT COCHRAN,  
GEORGE GAULBERT,  
RT. REV. T. U. DUDLEY, D. D.,  
HON. A. P. HUMPHREY,  
COL. CHARLES F. JOHNSON,  
OSCAR FENLEY,  
REV. JOHN H. HEYWOOD,  
WM. A. ROBINSON.

### **Treasurer.**

WM. S. PARKER.

### **Physician.**

WM. BAILEY, M. D.

### **Secretary and Superintendent.**

B. B. HUNTOON, A. M.

### **Matron.**

MRS. SARAH J. HUNTOON.

### **Teachers.**

MISS JOSEPHINE SLOAN,  
MISS LOUISE SLOAN,  
MISS BLANCHE LONSBURY,  
MISS SALLY E. HUGHES.

### **Teachers of Music.**

CHARLES FREDERICK,  
JULIA PURNELL.

### **Teacher of Handicraft.**

LOUIS METZ.

### **Teacher of Piano Tuning.**

CLIFFORD MARTIN.

### **Seamstress.**

MRS. AGNES TUMBRINK.

### **Visitors' Attendants.**

NANCY BROOKS,  
MARY FERGUSON.



# REGULAR ANNUAL REPORT OF THE BOARD OF VISITORS OF THE KENTUCKY INSTITUTION FOR THE EDUCATION OF THE BLIND.

To His Excellency, JOHN YOUNG BROWN,

*Governor of the Commonwealth of Kentucky:*

SIR: The number of pupils under our charge during the past year, in the White Department, was (107) one hundred and seven, and in the Colored Department (25) twenty-five, making in all (132) one hundred and thirty-two.

The names of those in the White Department, and their residences, are as follows:

NAMES.	RESIDENCES
Nancy Abner. . . . .	Lee county.
Molly Adams. . . . .	Ohio county.
John Adams. . . . .	Louisville.
Charles Andie. . . . .	Louisville.
J. Edward Allen. . . . .	Meade county.
Irene Baldwin. . . . .	East Bernstadt.
Joseph Ballard. . . . .	Graves county.



NAMES.	RESIDENCES.
Amanda E. Brooks . . . . .	Hazel Green.
Annabel Briggance . . . . .	Hickman.
Anna Bryant . . . . .	Woodbine.
Fred Bullock . . . . .	Grayson county.
Jefferson Burch, Jr. . . . .	Mt. Washington.
Amy Chenoweth . . . . .	Livingston county.
Oscar Clark . . . . .	Vanceburg.
Fanny Clore . . . . .	Grant county.
Chester Crawford . . . . .	Laurel county.
Murray Daniels . . . . .	Beaver Dam.
Adam Decker . . . . .	Louisville.
Winston Ewing . . . . .	Smith's Grove.
Ada Farris . . . . .	Salem.
Mary Ferguson . . . . .	Mt. Vernon.
Katy Fitzner . . . . .	Louisville.
Fred Finzer . . . . .	Louisville.
Louis Flynn . . . . .	Irvine.
William Fry . . . . .	Louisville.
Delia Gibbons . . . . .	Savage.
Hattie Gish . . . . .	Mt. Sterling.
Emmerine Gott . . . . .	Grayson county.
Iva Florence Green . . . . .	Ohio county.
Leslie Hackett . . . . .	Louisville.
George W. Hamilton . . . . .	Bewleyville.
Maria Harris . . . . .	Pulaski county.
Caroline Hartmetz . . . . .	Louisville.
Julia Hewett . . . . .	Louisville.
Manuel Hinkle . . . . .	Williamsburg.
Emily Hofer . . . . .	Louisville.
Fritz Hofer . . . . .	Louisville.
Mattie Holloway . . . . .	Taylor county.
Whitney Hunt . . . . .	Louisville.
Harry James . . . . .	Louisville.
Dolly Johnson . . . . .	Mt. Sterling.
Netty Johnson . . . . .	Covington.
Wilmore Kendall . . . . .	Morgan county.
Katy Kerins . . . . .	Louisville.
Florence King . . . . .	Ohio county.
Maggie Kistner . . . . .	Louisville.
James Kuhn . . . . .	Louisville.
Alonzo Lacy . . . . .	Eminence.
John Langley . . . . .	Hardin county.
Leachman Lewis . . . . .	Louisville.
Mitchell Lindsey . . . . .	Grayson county.
Ellen J. Madison . . . . .	Grayson county.
Eunice Madison . . . . .	Grayson county.

NAMES.	RESIDENCES.
Mary Ellen Mahar . . . . .	Louisville.
Clifford Martin . . . . .	Covington.
Rutherford H. Mattingly . . . . .	Knox county.
James Metcalfe . . . . .	Louisville.
Joseph Metzmeier . . . . .	Louisville.
Mary Millikan . . . . .	Marion.
Emma Millikan . . . . .	Marion.
Bessy Mitchell . . . . .	Covington.
Ephraim Moore . . . . .	Butler.
Floray Moore . . . . .	Williamsburg.
Mary F. Moore . . . . .	Webster county.
Dora Morgan . . . . .	Blackford.
Richard Morris . . . . .	Rutland.
Edward Neal . . . . .	Newport.
William Nelson . . . . .	Hopkinsville.
Albert Nesbit . . . . .	Louisville.
Anna Orr . . . . .	Louisville.
Lucy Osborn . . . . .	Murray.
Hatty Phillips . . . . .	Henderson.
Richard Piatt . . . . .	Maysville.
Eugene Pile . . . . .	Clinton.
Sarah Puckett . . . . .	Sugar Grove.
John Purcell . . . . .	Grayson county.
Albert C. Raible . . . . .	Louisville.
Dora Rankin . . . . .	Drennon Springs.
Gertrude Rankin . . . . .	Crittenden county.
Alice Ransdale . . . . .	Louisville.
Louisa Redman . . . . .	Laurel county.
Susan Redman . . . . .	Laurel county.
William Redman . . . . .	Laurel county.
George Reynolds . . . . .	Whitley county.
Wray Riddle . . . . .	Louisville.
George Robinson . . . . .	Woodsonville.
William Rose . . . . .	Louisville.
Elizabeth Simpson . . . . .	Gray.
William Simpson . . . . .	Gray.
Herman Spiesberger . . . . .	Louisville.
Henry Stagner . . . . .	Warren county.
John Stagner . . . . .	Warren county.
Carrie E. Stiles . . . . .	Nelson county.
Henrietta Stone . . . . .	Hurricane.
George Strothers . . . . .	Catlettsburg.
Frank Sullivan . . . . .	Paducah.
Albert Sweazy . . . . .	Rochester.
Ira Tharp . . . . .	Horse Cave.
Ethel Tresenriter . . . . .	Greenville.

NAMES.	RESIDENCES.
Ella Trumbo . . . . .	Morehead.
Mahala Turner . . . . .	Boyd county.
Allen Toby Vaughn . . . . .	Rush.
Irene Vettinger . . . . .	Louisville.
William Vosmer . . . . .	Covington.
Hatty Wagoner . . . . .	Dunmore.
Roy Webb . . . . .	Mayfield.
Mary Whitlow . . . . .	Edmonton.
Walter Wintersmith . . . . .	Louisville.

The names and residences of those in the Colored Department are as follows :

NAMES.	RESIDENCES.
John Banks . . . . .	Louisville.
Pierce Boyd . . . . .	Hopkinsville.
Effie Carter . . . . .	Owensboro.
Jessie Carter . . . . .	Owensboro.
Bertha Cheatham . . . . .	Frankfort.
Jesse Clark . . . . .	Elizabethtown.
Ella Covington . . . . .	Paducah.
Arthur Crabtree . . . . .	Owensboro.
Ada Cross . . . . .	Guthrie.
Samuel Davis . . . . .	Louisville.
Daniel Dickerson . . . . .	Louisville.
Simon Garner . . . . .	Lexington.
Jesse Gillespie . . . . .	Central City.
Theodore Golden . . . . .	Lexington.
Ernest Hardin . . . . .	Louisville.
Melissa Jones . . . . .	Kuttawa.
George Macauley . . . . .	Lawrenceburg.
Robert Palmer . . . . .	Louisville.
Mattie Riddle . . . . .	North Middletown.
Jacob Robinson . . . . .	Dixon.
Louis Russell . . . . .	Louisville.
Anna Smith . . . . .	Kuttawa.
Lucy Scott . . . . .	Louisville.
Ida Taylor . . . . .	Louisville.
Cleana White . . . . .	Greensburg.

The following named persons have been regularly employed :

A Superintendent, B. B. Huntoon, with a salary of \$125 a month.

A matron, Mrs. Sarah J. Huntoon, with a salary of \$41.66 $\frac{2}{3}$  a month.

A teacher, Miss Josephine Sloan, with a salary of \$50 a month.

A teacher, Miss Louise Sloan, with a salary of \$40 a month.

A teacher, Miss Julia Purnell, with a salary of \$30 a month.

A teacher, Miss Sally A. Hughes, with a salary of \$40 a month.

A teacher of sewing, Mrs. Agnes Tumbrink, with a salary of \$30 a month.

A teacher of handicraft, Louis Metz, with a salary of \$25 a month.

A teacher of music, Charles Frederick, with a salary of \$100 a month.

A teacher of piano tuning, Clifford Martin, with a salary of \$25 a month.

A kindergarten teacher, Miss Blanche Lonsbury, with a salary of \$40 a month.

Boys' governess, Nancy Brooks, with a salary of \$15 a month.

Girls' governess, Mary Ferguson, with a salary of \$10 a month.

A gardner and engineer, Thomas Lucas, with a salary of \$60 a month.

A fireman and assistant gardner, John Derosset, with a salary of \$30 a month.

A man for in-door work, John Owens, with a salary of \$35 a month.

A cook, Hannah Murphy, with a salary of \$25 a month.

An assistant cook, Annie Rooney, with a salary of \$15 a month.

A laundress, Mary Casella, with a salary of \$15 a month.

A laundress, Mary Curry, with a salary of \$15 a month.

A chambermaid, Mary Gilligan, with a salary of \$15 a month.

A chambermaid, Annie Kelley, with a salary of \$15 a month.

A chambermaid, Maggie Minogue, with a salary of \$15 a month.

A dining-room girl, Lizzie Riley, with a salary of \$15 a month.

A dining room girl, Mary Clair, with a salary of \$15 a month.

In the Colored Department:

A matron, Mrs. Margaret Wood, with a salary of \$25 a month.

A teacher, Miss Fanny Wood, with a salary of \$25 a month.  
 A teacher, Miss Octavia Wood, with a salary of \$25 a month.  
 A house girl, Ella Williams, with wages of \$14 a month.  
 A house-girl, Hattie Brashear, with wages of \$14 a month.  
 A house-man, Ewd. Wood, with wages of \$25 a month.

The publishers of the "Yenowine News," the "Musical Record," the "Christian Standard," the "Kentucky Deaf Mute," "The Index," the "Goodson Gazette," and the "Kentucky Journal," have furnished copies of their periodicals regularly and gratuitously to the school, and the pupils have listened to their contents with pleasure and profit.

The report of the treasurer shows that the receipts and expenditures for the Institution have been as follows :

Balance on hand November 1, 1894 . . . . .	\$4,927 86
November 19, 1894, third quarter's warrant . . . . .	4,250 00
February 15, 1895, fourth quarter's warrant, less discount to American National Bank, \$240.50 . . . . .	4,569 50
July 9, 1895, first quarter's warrant from Auditor not yet paid by Treasurer . . . . .	4,810 00
October 8, 1895, second quarter's warrant from Auditor not yet paid by Treasurer . . . . .	4,775 00
October 8, 1895, third quarter's warrant from Auditor not yet paid by Treasurer . . . . .	4,075 00
Miscellaneous receipts . . . . .	182 56
<hr/>	
Total receipts . . . . .	\$27,589 92
Total expenditures . . . . .	24,273 39
<hr/>	
Balance November 1, 1895 . . . . .	<u>\$3,316 53</u>

The detailed work of the school can not readily be written. Its importance can hardly be overestimated.

The American idea of a school for the blind is as far removed from its being an asylum on the one hand, as it is from its being a hospital for the treatment of diseased eyes on the other. Its work is strictly educational, and it is established, not out of charity for the afflicted, but from a sense of justice that recognizes the fact that, under the principles of our Government, a free education is the birthright of every child in the Republic, and that wherever there are natural deficiencies to interfere with the ordinary acquisition of an education that will prepare



the child for citizenship, special provision must be made that no class grows up in ignorance.

So, in almost every State in our Union, there are free schools established for the various defective classes. Kentucky established her school for the blind, in 1842, being the eighth school of the kind in the country. There are now thirty-four such schools in the United States.

The purpose of the State in founding the school was to give to the blind child as good an education as it offered to the seeing child, and, in addition, to give it instruction in manual training. In 1884, the General Assembly, with remarkable unanimity, passed an act providing, in a special building, separate and distinct from the white children, a department for the education of the colored blind children of the State.

In carrying out the purposes of the founders of this public school for the blind, your Board of Visitors have endeavored to meet the expectations of a wise and beneficent public sentiment. They would respectfully submit that they have tried to follow in the line marked out in the beginning by those eminent men, who for many years, guided the progress of the school, and have tried to maintain a school that should secure to the blind wards of the State advantages fully equal to those enjoyed by other children in the best schools of the State. With this end in view, they have secured for the school skillful and devoted teachers, good and faithful servants, improved educational appliances, and have provided that the children under their control shall be properly and kindly cared for in respect to their food, their shelter, their clothing and their health.

Your Board take great pleasure in assuring you, and the members of the General Assembly, that the school, during the past year, has fully maintained its high standard of efficiency. There has been a spirit of harmony pervading the school, on the part of pupils and employes alike, that has produced the most satisfactory results.

A blind child should be sent to school as soon as it can get along without a nurse, say at six or seven years of age. Every year of delay after that time renders the task of its education more difficult and slower and its education more incomplete.

From the moment it reaches the school, the sense of touch has to be persistently trained. The kindergarten, with its great variety of devices and employment for busy fingers, is of inestimable value for this purpose, and the work done by the children in this department arrests the attention and excites the admiration of the most careless visitor.

After the kindergarten, the course of manual training is continued, as far as practicable, in every department. The child studies things and models of things, and in its study of geography, models, in sand and clay, the surface of his State and country and the grand divisions of the globe. He is taught to read and write and cipher. He studies grammar, history, natural philosophy, and all the branches of a good English education. If he has any musical ability, it is scientifically and sedulously cultivated, for it is in the practice of the art of music he can compete with his seeing comrades on more equal terms than in any other occupation. He is also given instruction in the work-shop, where he learns to cane chairs, make brooms and practice simple upholstery, such as the repairing of lounges and the manufacture of mattresses. If he is capable of learning it, he is also taught the art of piano tuning, in which art several of our graduates have obtained a well deserved success.

The girls are carefully taught the use of the needle, and learn as they progress, how to patch, and darn, and mend, how to knit, how to use the sewing machine, and how to cut out, fit together and make their own garments.

In this course of study and development, extending over eight or ten years, the blind child has gained a confidence in his own powers that enables him to overcome to a great extent, the natural awkwardness of blindness. He has become a youth of intelligence, an agreeable companion, a self-respecting, independent person, familiar with current events, with a well trained mind, and familiar with the amenities of civilized life. He is, to a considerable extent, prepared to earn a living for himself.

And yet your Board regrets to say, that in our State more than seventy per cent. of the blind children of the Commonwealth, between the teachable ages of six and sixteen years of age, are growing up in ignorance, without being permitted by

their parents to have any share in the advantages so freely offered by the State ; and this arises from want of knowledge of the advantages afforded by our school, and from a disinclination to be parted from the child, however much its true interests require it to be educated.

Your Board has taken much pains to spread abroad a knowledge of the school, but has found its most efficient help in the interest taken by the members of the Legislature, and their personal efforts with those parents of blind children among their own constituency, in inducing them to send their children to school.

The general result of the management of your Board of Visitors may be briefly stated by calling attention to the fact that one of the special reports of the United States Census of 1890, shows that the average annual expense per capita for all the institutions for the blind in the United States was \$280, while the per capita for the past year for the Kentucky Institution for the Blind is not quite \$180. It is not at all probable that the conditions regulating the expenses of any two of these institutions are alike, and too much importance should not be given to such comparative statements of expenses ; but as these census statistics are all that we have for making comparisons, the figures are given as showing that while our expenses are by no means the least, they testify to the fact that the management of your Board has not been extravagant.

Especial attention is called to the conditions of admission given as an appendix at the end of this report.

In conclusion, it gratifies your Board to say that, as usual, they have managed the finances of the school so as to keep within its income for the year, and to pay cash for all its purchases, thus securing the best rates in the market. Most of the supplies are furnished by contract, given by the Board to the lowest and best bidders. The bills are audited monthly, at the regular meetings of the Board, and every account carefully scrutinized. The Board has divided itself into four visiting committees, each of which is to visit the Institution in the month allotted to it, and report upon its condition to the Board.

They would also point to the facts, that the number of pupils is greater than ever before reported ; that the teachers are able

and earnest in their work ; that all the employes are faithful and industrious, and that the pupils have made commendable progress.

All of which is respectfully submitted.

Board of Visitors. BY JAMES S. PIRTLE, *President*.

## REPORT OF THE COMMITTEE ON BUILDINGS AND SUPPLIES.

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*To the Board of Visitors of the Kentucky Institution for the Education of the Blind:*

GENTLEMEN: Your Committee would respectfully report that during the past year they have supervised, as usual, the purchase of supplies for the Institution in all its departments, and have regularly transmitted a monthly statement of their accounts to the Governor of the Commonwealth. A summary of these statements is herewith appended.

All of which is respectfully submitted.

ROBERT COCHRAN, *Chairman*,  
GEORGE GAULBERT,  
WM. A. ROBINSON.



## KENTUCKY INSTITUTION FOR THE EDUCATION OF THE BLIND.

*Expenditures for the Year Ending October 31, 1895,*

	October 1894.	November, 1894.	December, 1894.	January, 1895.	February, 1895.	March, 1895.	April, 1895.
Pay-Roll { Salaries . . . . .	\$536 65	\$556 65	\$576 65	\$576 65	\$506 65	\$576 65	\$576 65
Wages . . . . .	280 00	276 00	298 50	312 00	310 00	307 50	285 00
Dry goods and clothing . . . . .	494 77	115 30	103 02	30 30	20 85	35 01	161 49
Groceries . . . . .	276 39	359 96	367 91	242 60	273 71	260 13	247 69
Breadstuffs . . . . .	45 00		45 00		45 00		
Meats, fowls, fish and game . . . . .	132 24	143 56	160 92	159 22	139 36	139 54	124 74
Fruits, vegetables, milk and ice . . . . .	110 25	92 95	113 80	102 25	96 65	107 85	81 95
Spiritous liquors . . . . .							
Drugs, medicines, and professional services . . . . .	42 45		35 00				
Confectioneries . . . . .			19 01		6 90		5 65
Fuel and lights . . . . .	53 82	57 33	64 61	68 25	48 49	40 30	31 85
Amusements . . . . .	8 75			7 00		16 50	27 15
Buildings and repairs . . . . .	6 80	116 03	20 68	136 57	36 34	77 85	128 85
Household and kitchen furniture . . . . .	185 73	54 03	7 00	4 75	120 00	11 65	31 90
Laundry . . . . .				35 18	66 00		
Vehicles, tools, and implements for the farm and garden . . . . .			17 75			10 30	4 50
Expenses on live stock . . . . .	9 80						26 25
Labor not included in pay-roll . . . . .	34 00	18 80	14 00	4 00	18 75	16 50	31 60
Books and stationery . . . . .	17 25	3 25	19 80	1 10	10 08	14 99	20 92
Postage and traveling expenses . . . . .	27 30	12 95	16 05	15 27	25 86	38 47	18 28
Materials for work-shop . . . . .	16 30	19 79	26 46			5 50	
Tuning and repairing musical instruments . . . . .						31 73	
Water rent . . . . .	23 46	22 54	18 14	26 89	16 91	18 38	9 39
Funeral expenses . . . . .							
Insurance . . . . .							
Total . . . . .	\$2,300 96	\$1,849 14	\$1,924 30	\$1,722 03	\$1,741 55	\$1,708 85	\$1,813 36

*Expenditures for the Year Ending October 31, 1895.—Continued.*

	May, 1895.	June, 1895.	July, 1895.	August, 1895.	September, 1895.	Total.
Pay-Roll { Salaries . . . . .	\$956 65	\$196 65	\$196 65	\$196 65	\$546 65	\$5,999 80
Wages . . . . .	296 00	270 00	318 00	283 00	295 00	3,531 00
Dry goods and clothing . . . . .	26 32	54 98	50 64		81 07	1,173 75
Groceries . . . . .	299 09	207 04	55 13	85 52	227 76	2,902 93
Breadstuffs . . . . .	66 75				13 35	215 10
Meats, fowls, fish and game . . . . .	122 92	74 17	39 30	30 61	65 20	1,331 78
Fruits, vegetables, milk and ice . . . . .	74 95	55 55	30 45	30 40	65 45	962 50
Spirituous liquors . . . . .						
Drugs, medicines and professional services . . . . .	29 19	55 00	14 60	6 83	5 00	200 62
Confectioneries . . . . .			32 00			51 01
Fuel and lights . . . . .	24 83	212 48	5 06	5 59	11 31	623 92
Amusements . . . . .						
Buildings and repairs . . . . .	2 60	182 19	84 92	379 86	115 37	59 40
Household and kitchen furniture . . . . .		8 43	15 98	85 05	161 13	1,287 56
Laundry . . . . .						685 65
Vehicles, tools and implements for the farm and garden . . . . .	48 40					101 18
Expenses on live stock . . . . .						80 95
Labor not included in pay-roll . . . . .	41 35	3 00			38 45	77 50
Books and stationery . . . . .	19 60	114 46	62 50	74 65	37 74	468 35
Postage and traveling expenses . . . . .		28 03	8 00	1 45	20 80	165 27
Materials for work-shop . . . . .	366 87	40 06	8 43	8 00	24 48	601 52
Tuning and repairing musical instruments . . . . .	124 65		8 40		99 08	300 18
Water rent . . . . .		20 40			90	53 03
Funeral expenses . . . . .	32 75	9 56	20 26	16 75	20 79	235 82
Insurance . . . . .						
Total . . . . .	\$2,532 42	\$1,532 00	\$950 32	\$1,204 36	\$1,829 53	\$21,108 82

## COLORED DEPARTMENT—KENTUCKY INSTITUTION FOR THE EDUCATION OF THE BLIND.

*Expenditures for the Year Ending October 31, 1895.*

	October, 1894.	November, 1894.	December, 1894.	January, 1895.	February, 1895.	March, 1895.	April, 1895.
Pay-Roll { Salaries.....	\$109 00	\$109 00	\$109 00	\$109 00	\$109 00	\$109 00	\$109 00
Wages.....							
Dry goods and clothing.....		120 34					13 25
Groceries.....	61 50	88 03	55 70	51 06	70 67	23 31	68 58
Breadstuffs.....							
Meats, fowls, fish and game.....	45 32	46 93	47 53	45 76	40 08	44 32	43 52
Fruits, vegetables, milk and ice.....	18 15	17 25	17 65	17 55	14 85	17 30	16 90
Spirituos liquors.....							
Drugs, medicines and professional services.....		5 00	6 00				
Confectioneries.....							
Fuel and lights.....							
Amusements.....							
Buildings and repairs.....	35 00						
Household and kitchen furniture.....		11 07					10 50
Laundry.....							
Vehicles, tools and implements for the farm and garden.....							
Expenses on live stock.....							
Labor not included in pay-roll.....							
Books and stationery.....							
Postage and traveling expenses.....							
Materials for work-shop.....							
Tuning and repairing musical instruments.....							
Water rent.....			41 65				
Funeral expenses.....							
Insurance.....							
Total.....	\$268 97	\$337 62	\$277 53	\$223 37	\$234 60	\$193 93	\$261 75

*Expenditures for the Year Ending October 31, 1895—Continued.*

	May, 1895.	June, 1895.	July, 1895.	August, 1895.	September, 1895.	Total.
Pay-Roll { Salaries . . . . .	\$109 00	\$109 00	\$109 00*	\$110 00	\$120 00	\$1,320 00
Wages . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Dry goods and clothing . . . . .	. . . . .	. . . . .	. . . . .	60 80	9 00	203 39
Groceries . . . . .	32 13	41 30	28 67	12 36	52 67	585 98
Breadstuffs . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Meats, fowls, fish and game . . . . .	45 12	27 56	14 16	14 16	22 80	437 26
Fruits, vegetables, milk and ice. . . . .	18 80	17 70	14 10	14 25	18 60	203 10
Spirituous liquors . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Drugs, medicines and professional services. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	11 00
Confectioneries . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Fuel and lights . . . . .	. . . . .	57 20	. . . . .	. . . . .	. . . . .	57 20
Amusements . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Buildings and repairs . . . . .	. . . . .	. . . . .	93 62	. . . . .	11 65	140 27
Household and kitchen furniture . . . . .	. . . . .	. . . . .	. . . . .	23 00	34 30	78 87
Laundry . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Vehicles, tools and implements for the farm and garden . . . . .	6 00	. . . . .	. . . . .	. . . . .	. . . . .	6 00
Expenses on live stock . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Labor not included in pay-roll . . . . .	. . . . .	38 00	. . . . .	. . . . .	. . . . .	38 00
Books and stationery . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Postage and traveling expenses . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Materials for workshop . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Tuning and repairing musical instruments. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Water rent . . . . .	. . . . .	41 85	. . . . .	. . . . .	. . . . .	83 50
Funeral expenses . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Insurance . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Total . . . . .	\$211 05	\$332 61	\$259 55	\$234 57	\$269 02	\$3,164 57

## TERMS OF ADMISSION.

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In respect to the forms to go through to secure the admission of a child to the KENTUCKY INSTITUTION FOR THE EDUCATION OF THE BLIND, it is only required that the child be of so defective vision as to be unable to get an education in the ordinary schools; that it be of good health and sound mind, and within the ages of six and eighteen; for it must be remembered that the Institution is neither a hospital nor an asylum. If the child is destitute, the fact should be so certified by the County Judge, and in that case clothing will be provided. No charge is made for board or tuition.

The school session begins on the second Wednesday of September, and closes on the second Wednesday of June. Pupils will be admitted at any time, but they are much benefitted by beginning promptly at the first of the session. The children all return to their homes in the summer.

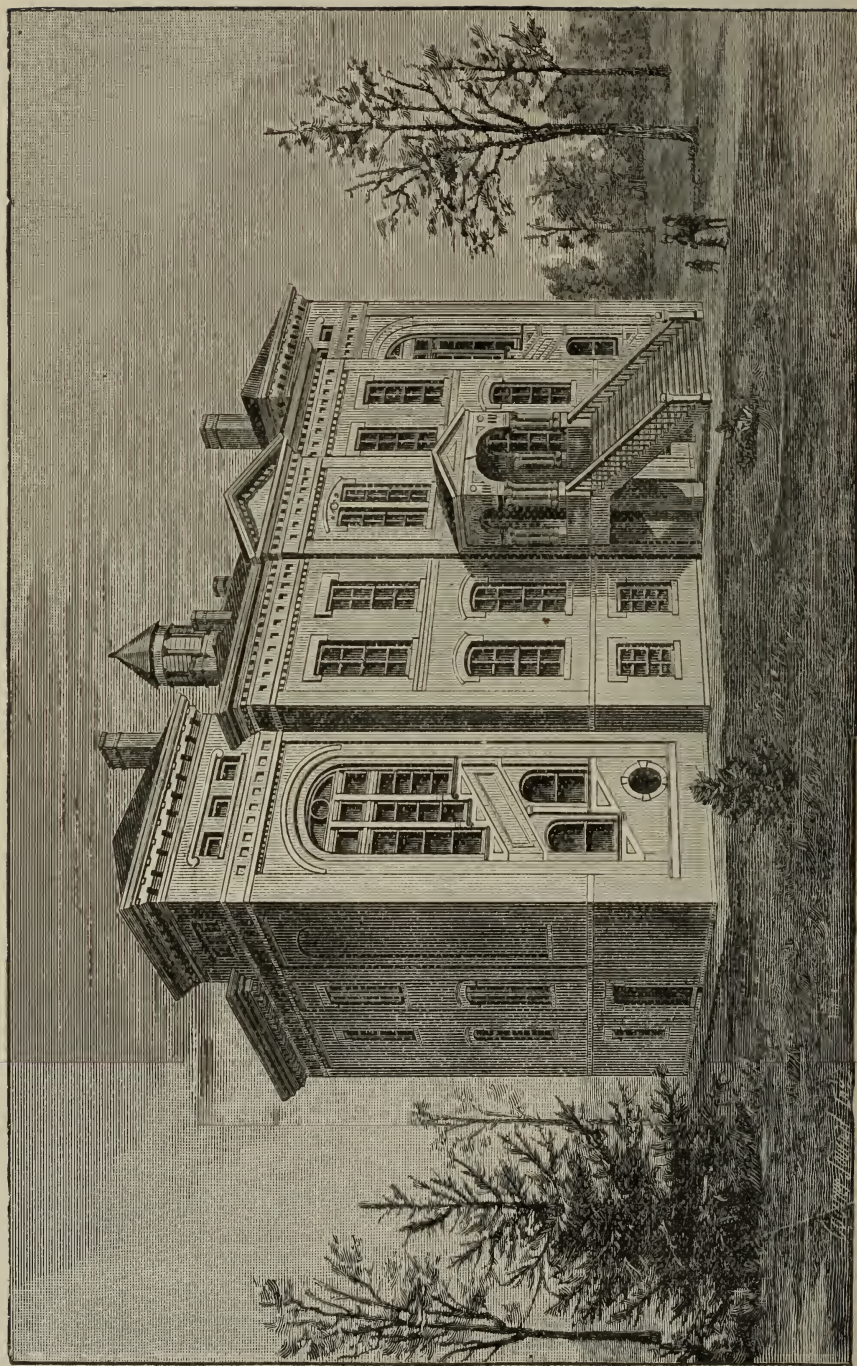
If fuller information is desired, it may be had from the Superintendent, or from any of the Trustees, who will cheerfully correspond with any person wishing to place a blind child in the Institution.



**THE FOLLOWING QUESTIONS SHOULD BE ANSWERED IN  
WRITING:**

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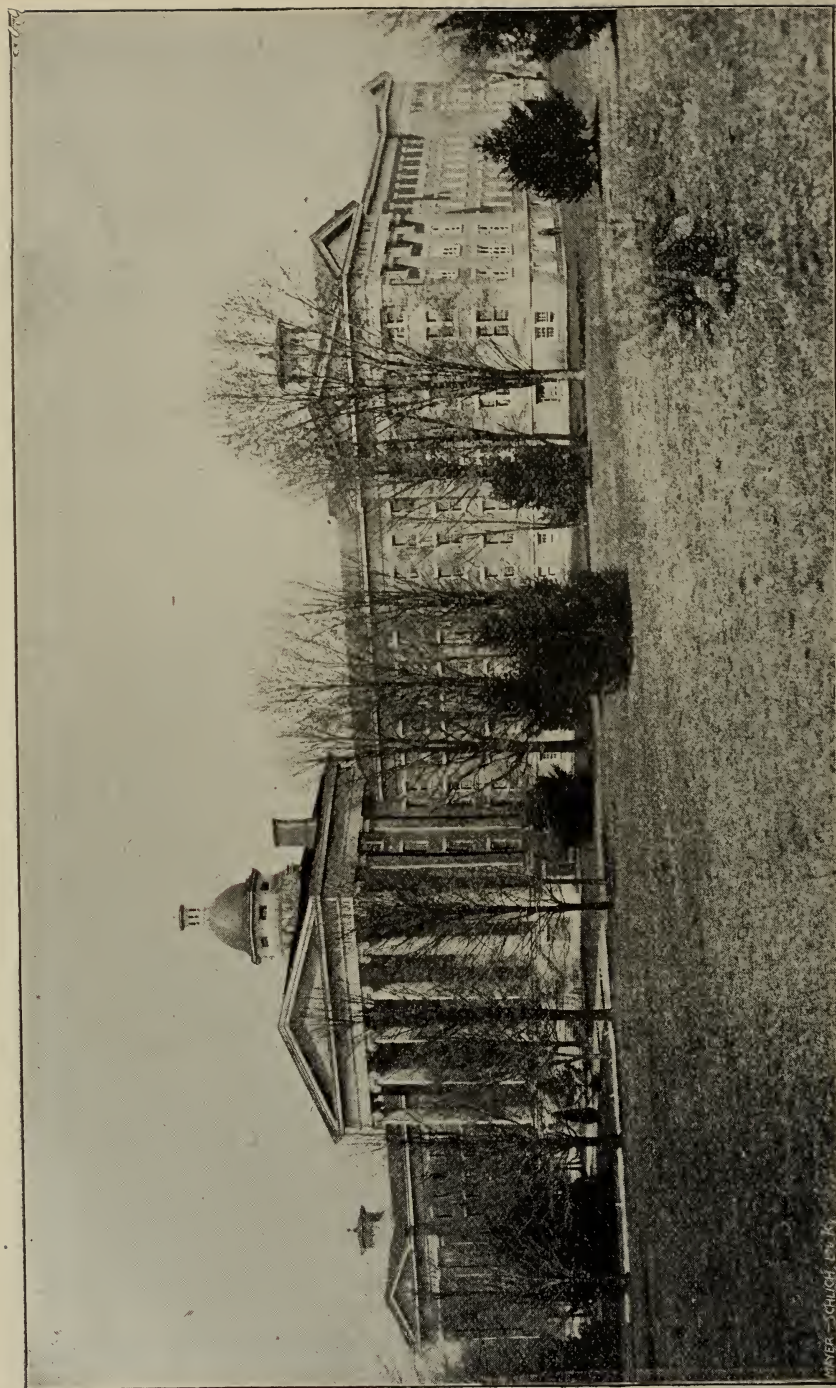
- What is the child's name ? .....
- When was the child born ? .....
- Where was the child born ? .....
- What is the name of the father ? .....
- What was the mother's maiden name ? .....
- What was the cause of the child's blindness ? .....
- How long have its eyes been affected ? .....
- How much can the child see ? .....
- Are any of the child's kin blind, or have any of them trouble  
with their eyes ? .....
- If so, state who these are .....
- Have the child's eyes ever been examined by an oculist ? .....
- If so, when ? .....
- What is the name of the oculist ? .....
- Has the child been vaccinated ? ..... Is the child of  
good health and sound mind ? .....
- What is the post-office address of the child's parents or  
guardian ? .....
- Where and to whom may a telegraphic message concerning  
the child be sent ? .....
- Who will care for the child during vacation ? .....



COLORED DEPARTMENT.

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WESTERN KENTUCKY LUNATIC ASYLUM.

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FORTY-FIRST ANNUAL REPORT

—OF THE—

WESTERN KENTUCKY  
ASYLUM FOR THE INSANE.

---

OCTOBER 1, 1894, TO SEPTEMBER 30, 1895.

---

TO HIS EXCELLENCY,

GOVERNOR JOHN YOUNG BROWN.

---

FRANKFORT, KY.:

PRINTED BY THE CAPITAL PRINTING COMPANY.

1895.





# OFFICERS

—OF THE—

## WESTERN KENTUCKY ASYLUM FOR THE INSANE.

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### MATRON.

MINERVA PECK.



# REPORT BOARD OF COMMISSIONERS.

---

*To His Excellency, JOHN YOUNG BROWN,*

*Governor of Kentucky :*

SIR: The Board of Commissioners of the Western Kentucky Asylum for the Insane have the honor to offer for your consideration their report for the year ending September 30, 1895, it being the forty-first annual report. We have every reason to congratulate ourselves upon the work of the year performed, as it has been in the face of difficulties.

It is with more than ordinary feelings of regret that we find ourselves unable to notify you of the completion of our buildings as we had hoped. But with an empty State Treasury, and the Auditor refusing to draw his warrants for any part of the special appropriations until he was satisfied the money was on hand to pay them, we were unable, without the necessary assurance of the Auditor's warrants, to make suitable arrangements for carrying on the building. So that nothing has been added to the foundations reported last year, and nothing done to relieve the overcrowded condition of the Asylum except the conversion of a large attic chamber over one of the brick cottages into a dormitory, at a cost of \$722.14, making very comfortable quarters for about forty-five patients. Owing to the fact that there was no near prospect for building, the Board thought it advisable to dispose of the brick burnt last year. This has been done at a good profit.

We turn with great relief from this disappointment to inform you of the completion of the system of water-works suggested in our last report. A statement of the cost of this improvement will be found in the Superintendent's report. The plant, while constructed at a very low cost, is first-class in every respect, and of capacity sufficient to supply every possible need

of the Asylum. The work was completed at a very fortunate time—in the midst of a drought, that, in the end, would certainly have brought calamity upon the Institution.

The Board, recognizing the great necessity for this work, with the lessons of the past before them, concluded it would be unwise to wait for a legislative appropriation, and decided to push the work to completion at the earliest date possible, and to take, though they could ill afford it, the necessary amount from the per capita allowance. This, by the practice of rigid economy, and at the expense of many other needed improvements, they were able to do. The end has fully justified the means. We consider this by no means the least of the many great improvements made under the present management of the Asylum.

Change from the old contract system to slaughtering our own animals, besides proving economical, gives us the best meat to be had.

An electric light plant has literally brought us out of darkness into light, thereby greatly promoting the safety, health and comfort of the people, besides being of inestimable value in other respects.

Ensilage for cattle has given increased dairy products. Cold storage enables us to preserve our meats, etc.; and now, to crown all, we have water-works that will give a never-failing and abundant supply, at the same time probably reduce the Asylum insurance about 25 per cent., a saving to the State of 15 per cent. per annum on the investment.

All of these advanced movements, and many others of great importance, have been made under the superintendency of Dr. B. W. Stone, who has labored untiringly and with unselfish zeal to put the Institution upon a footing in keeping with the most enlightened views of the age.

The Asylum property was reinsured this year at slightly reduced rates. Still lower rates may be hoped for in the future on account of increased facilities for preventing fire.

The financial affairs of the Asylum have been well conducted. Although the quarterly allowances have not been regularly paid, we have, through our Treasurer, made very satisfactory arrangements with some of the Louisville banks to cash the



Auditor's warrants, and, consequently, have suffered no serious inconvenience. We refer to our Treasurer's report for a detailed statement of the financial operations.

The Asylum premises have been well kept, and the health of the people has been good.

We commend the officers for the faithful manner in which they have performed their respective duties.

After a year's experience, we wish to renew the suggestion made in our last report, that the next Legislature make the quarterly allowances payable at the beginning instead of the end of the quarter; or rather, change the language of the statute so as not to allow of the latter construction. We urge this as a question of the greatest importance to the Asylum, not only as a matter of convenience, but of economy as well.

The law making appropriations for building additions to the Asylums, passed by the last Legislature, is defective. The appropriations are made payable out of any money in the Treasury not otherwise appropriated. The Auditor makes this the ground for refusing to draw his warrants, saying he must be satisfied the proper funds are in the Treasury before he can draw. An emergency clause was attached to the bill, and it became a law at once, but as yet we have derived no benefit from it.

In conclusion, we trust it will not be out of place, in view of the near approach of the end of your term of office, to offer our congratulations to your Excellency upon the splendid record you will leave behind as Chief Executive of the State.

Very respectfully reported,

CHARLES KNIGHT, *President*.

THOMAS GREEN,

H. H. ABERNATHY,

HENRY C. GANT,

E. B. BASSETT,

CHAS. F. JARRETT,

THOMAS CARLOSS,

T. E. BARTLEY,

ALEX. CAMPBELL.

## SUPERINTENDENT'S REPORT.

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*His Excellency*, GOVERNOR JOHN YOUNG BROWN :

DEAR SIR: The most important work accomplished at this Institution during the year just closed, was the securing of an abundant supply of fine water from Little River, thus making the Institution safe against a water famine for all time. The only direct financial outlay for the plant was for the water-pipe and machinery, the lumber and tin for roofing pump-house, and the cement. The labor of installation was done by our patients and regular employes, without increasing the number of the latter above that usually engaged. The brick used in erecting the pumping station were made mainly by patients' labor. Excluding brick and labor, the cost was \$4,750.67.

In order to accomplish the work, I have, at the suggestion of the Board of Commissioners, used the closest economy in the general management. The immense yield of our farm and garden, and the low prices prevailing here the past year for almost everything, have materially contributed to the successful issue of the work. Some of the less important general repairs had to be neglected. The clothing of the patients was less expensive and plainer than usual; still, without having entailed any serious discomfort to the patients, the administration is entitled to congratulation in the fact that the fiscal year has closed without financial deficit, and that during the year a fine system of water-works has been provided for the Institution.

This Asylum has never had a sufficient supply of water for all purposes. At the close of its first year of operation, Dr. Annan, the first Superintendent, in his 1855 report, complained of the inadequacy of the supply, and suggested securing water from Little River.

Dr. Montgomery, the second Superintendent, in his report of 1858 and 1859, wrote: "The water supply is woefully deficient.

The spring has been the chief but inadequate and uncertain source, and some other scheme should be devised and executed which will secure a certain, constant and abundant supply of water. During the last three or four years the volume of water which previously flowed from the spring has become reduced fully fifty per cent."

During my residence of twenty-six years here there have not been four years during which it could be truthfully said there was a sufficient supply of water for the Asylum. In nearly every year it has been necessary, during the greater number of days of July, August and September, to stop the work of the laundry and engine-room at noon until the following morning to permit a sufficient accumulation of water to do the necessary cooking, washing, etc., of the day. The weekly bathing of patients, as well as the washing of clothes, often had to be omitted on account of the scarcity of water. The sewers have repeatedly been clogged, because there was not enough dilution of the offal to move it out. Thirteen years ago extremely cold weather supervened before the close of the drought in the fall. The quantity of water available was insufficient to heat the building by steam, and at the same time do the work of cooking, pumping, etc. To meet the emergency the Hopkinsville fire company was engaged to lay a long line of hose, from a newly discovered spring to the building, through which the fire engine pumped a sufficient supply of water to keep water pipes and patients from freezing until iron pipes could be laid to the spring, through which the pumping was done by hand until the close of the drought. Warned by this experience, an engine-house, with pump and boiler, was placed near the new spring, which has since materially augmented the water supply.

The quantity from both of the springs, however, has been gradually diminishing the past ten years, until it has become inadequate for the purposes of this large establishment. At the beginning of my incumbency as Superintendent, six years ago, the supply of water was doubled by the opening of new springs and boring wells; but, in the drought of last year, all was found to be inadequate for our necessities, and the supply had to be supplemented again by hand pumping, day and night, for a month, from another spring opened.



The facts I have narrated show the institution has never had a sufficient supply of water; and demonstrate the wisdom of the Commissioners in securely providing an abundant quantity for all time. They are a sufficient answer to certain adverse criticisms, which the execution of the splendid work has called forth. The water-works should have been built if their cost had been five times what it was.

The author of the criticisms above referred to, coupled with them a general charge of extravagance against the present administration. The only possible basis for the charge is the large special expenditures made the first year of my Superintendency, 1889-90. A bare review of them will demonstrate their propriety. They were all for needed repairs or improvements which would conduce to the more economical management of the Institution.

#### FENCING.

Five miles of strong woven picket fencing was built, to replace the same length of rail fencing, which was rapidly decaying and disappearing under the treatment of time and trespassers. Besides this, one hundred acres of unenclosed woodland was surrounded with a barbed wire fence.

#### ORCHARD.

Thirty-five acres of orchard were planted, besides a vineyard.

#### DAIRY BARN.

A fine dairy barn for sixty cows was built, and subsequently a silo. We have now better milk, at less cost, than when it was purchased by contract.

#### SLAUGHTER-HOUSE.

A slaughter-house was built with all necessary appliances, and an equipment of boiler and tank for the rendering of lard and tallow. The plan of buying the cattle and doing the slaughtering here, is found to be cheaper, and certainly far more satisfactory than buying beef by contract, as had always been done previously.

#### COLD-STORAGE.

A large cold-storage room was fitted up to preserve the meat and milk during the warm weather.

### LAUNDRY.

The laundry was furnished with three large sized improved metal washers, to replace a worn out primitive pattern of "Shaker" washing machine, which had been installed over thirty years ago.

A large dry room was added, besides mangles for ironing, and other machinery. Previously, all of the immense work of ironing had been done with flat irons.

### KITCHEN.

The kitchen was provided with a power sausage-mill, a coffee roaster and a set of fine coffee urns, none were in use before. A new and larger range was necessary, besides additional steamers and cookers.

### ENGINE ROOM.

The engine room was provided with two new pumps needed, a large lathe, upon which nearly all of the repairing of machinery has since been done, and two efficient water heaters (a "Berryman" and a "Tobey") to replace a heater, previously in use, constructed of an old boiler, crudely fitted up interiorly with gas pipe, which was utterly inadequate for the purposes of the Asylum.

### ELECTRIC LIGHTS.

The largest expenditure was for the installation of an efficient system of electric lighting, the importance of which is only secondary to the water-works. The lighting was previously by coal-oil lamps and candles. The wards were, however, usually in darkness from dusk to dawn, and that fact accounts for the comparatively rare occurrence of coal-oil explosions. I have, however, known of several very dangerous ones, when destructive conflagrations were averted with great difficulty.

The total cost of the electric plant, including the wiring, the lamps, fixtures, etc., was less than \$4,000, and to prove the efficient character of the plant it is only necessary to add that the dynamo is of the Thomson-Houston type, and the engine a Buckeye.

All of the work described above is of the most substantial character, and was paid for legally out of the surplus fund



accumulated by my predecessor and left in the Asylum treasury by him on his retirement, April 20, 1889. The amount of surplus, as shown by the books of the treasurer, was \$9,304.57.

### EMPLOYMENT.

The beneficent influence of employment for nearly all insane patients is universally conceded. It is better than amusements or other diversions for promoting cheerfulness and contentment; superior to medicines for restoring and maintaining the general health, and to secure the natural sleep and quiet. Many unpromising patients have gone home restored from the farm, the garden, the brick yard and other fields of labor. It has been a constant aim at the Asylum to enlist as many patients as possible in some sort of work. When we are successful in so doing, in individual cases, we are almost sure of materially adding to their chances of recovery, besides promoting their happiness during their stay at the Asylum. There are few asylums in the United States where a larger percentage of patients engage in profitable work than at this Institution; and their production has saved the Asylum large expenditures, the last four years especially, and materially contributed to the general maintenance during the years when the per capita was at the lowest point.

### INDUSTRIES.

The principal industries prosecuted here are mattress making, shoe repairing, chair bottoming, carpet weaving and brick making. Besides these, the blacksmith shop, tin shop and corn meal mill are all in successful operation. The domestic work, the grading, ditching, gardening and farming are done mainly by the patients. The net profit of the farm and garden, after paying all expenses, including wages of several paid laborers, for the past year, was \$1,500.96. The net profit of the slaughterhouse, over the system of purchasing the beef, was \$775.44. The net profit of the dairy was \$2,187.75.

### RESTRAINTS.

The administration at this asylum is in sympathy with the efforts now being made, especially in American asylums, to abolish the employment of restraints as far as possible. The

effects produced upon patients, almost without exception, have been beneficent. They are shown in their greater quietude and contentment, and the work of the attendants becomes more pleasant and lighter. Greater care and watchfulness are necessary, but there is always an improvement in the cleanliness of patients and their quarters, as well as much less destruction of property, fewer casualties and escapes, and the well-being and restoration of patients are promoted.

The establishment of the ward for violent patients, in charge of an extra number of judicious and strong attendants, whose principal work is to pacify and control, makes it possible to curtail restraints to an extreme degree. All of the dangerous patients are committed to this ward.

An excellent work is also done in the "Hospital Ward," where there is day and night attendance for the sick and the uncleanly classes. Here also the suicidal patients and such as are inclined to self-mutilation are placed, for constant oversight. Special and close nursing is given the sick, and every effort used to reform the habits of the unclean.

The "Tables" accompanying this report show a low rate of deaths, and a creditable proportion of recoveries.

I have admitted as many patients as possible during the year; and, to make room, I have discharged a large number of unrestored, many of whom are of the harmless and incurable types.

There has never been a year, since my connection with this Asylum, during which I more strongly felt the need of co-operation and active sympathy of my associates in the administration of its affairs. I cannot sufficiently express my gratitude for the cordial support I have received from the members of the Board of Commissioners especially. The State has never had an Asylum Board whose members were more profoundly moved by the spirit of philanthropy. Their sincere devotion to the interests of the insane was shown not only by the full monthly sessions, and the frequent called meetings, but by the hard individual work done, and by the magnificent results accomplished during the year.

The following periodicals have continued to come to the Asylum gratuitously: The Christian Observer, the Farmer's

Home Journal, the Capital, the Bowling Green Times-Gazette and the Index and Review.

We have received from friends of the Asylum a large number of copies of the illustrated papers and magazines as well as books. Miss Emily B. Perry, of Hopkinsville, has been particularly generous in sending us a large supply.

I am deeply grateful to Your Excellency for continued personal and official interest and counsel.

Your obedient servant,

BARTON W. STONE,  
*Superintendent.*

TABLE No 1.

Showing Movement of Population and Expenditures for Each Year Since the Opening of the Asylum, September 18, 1854.

DATE.	PATIENTS.		Total	DISCHARGED.						Total	EXPENDITURES.		Total
	Remaining . .	Admitted . .		Restored . .	Improved . .	Unimproved .	Eloped . . .	Not Insane . .	Died . . . . .		Building and Repairs . .	Current . . .	
Sept. 18, 1854, to Dec. 31, 1855 . .	81	113	113	8	6	..	..	..	18	32	\$10,112 03	..	\$6,301 61
Dec. 31, 1855, to Dec. 31, 1856 . .	..	95	176	38	13	..	5	..	18	74	15,284 25	\$1,255 11	11,367 14
Sept. 30, 1856, to Dec. 1, 1857 . .	102	..	..	..	..	..	..	..	..	..	18,394 17	2,413 20	17,697 45
Dec. 1, 1857, to Dec. 1, 1858 . .	159	106	208	27	6	..	..	..	16	49	20,380 40	5,617 71	23,921 88
Dec. 1, 1858, to Dec. 1, 1859 . .	204	129	288	38	6	..	..	..	40	84	..	5,276 87	25,656 77
Dec. 1, 1859, to Dec. 1, 1860 . .	..	124	3.8	52	15	4	..	..	47	118	..	..	..
Dec. 1, 1860, to Dec. 31, 1860 . .	210	..	210	12	31	..	4	..	2	49	{ Asylum burned Nov. 30, 1860. Cost of rebuilding not included in table.		
Dec. 31, 1860, to Sept. 1, 1861 . .	138	12	173	23	6	..	..	..	6	35			
Sept. 1, 1861, to Oct. 31, 1862 . .	108	4	142	15	9	..	..	..	10	34			
Oct. 31, 1862, to Oct. 10, 1863 . .	114	20	128	8	..	..	3	..	3	14			
Oct. 10, 1863, to Oct. 10, 1864 . .	123	35	149	14	..	1	..	..	11	26	4,555 25	21,138 61	25,693 86
Oct. 10, 1864, to Oct. 10, 1865 . .	143	59	192	18	..	1	1	..	19	39	..	31,206 51	31,206 51
Oct. 10, 1865, to Oct. 10, 1866 . .	123	184	277	31	..	2	3	..	25	61	..	..	42,232 61
Oct. 10, 1866, to Oct. 10, 1867 . .	216	177	333	41	3	..	2	..	33	80	12,693 70	55,596 92	68,290 62
Oct. 10, 1867, to Oct. 10, 1868 . .	253	110	363	38	3	2	1	..	42	83	17,756 00	53,397 95	72,353 95
Oct. 10, 1868, to Oct. 10, 1869 . .	280	81	361	39	5	3	4	..	9	60	4,788 12	56,720 34	61,508 46
Oct. 10, 1869, to Oct. 10, 1870 . .	301	71	372	27	5	..	..	..	14	47	4,387 00	58,129 64	63,516 64
Oct. 10, 1870, to Oct. 10, 1871 . .	325	59	384	30	8	2	1	..	22	63	5,868 91	58,635 92	64,495 83
Oct. 10, 1871, to Oct. 10, 1872 . .	321	41	362	21	7	..	..	..	21	49	4,707 57	60,444 46	65,152 13
Oct. 10, 1872, to Oct. 10, 1873 . .	313	73	386	29	6	37	2	..	30	104	..	..	38,786 10
Oct. 10, 1873, to Oct. 10, 1874 . .	282	89	371	25	5	4	1	..	12	47	..	..	57,723 98
Oct. 10, 1874, to Oct. 10, 1875 . .	324	74	398	38	4	3	1	..	80	76	..	..	62,799 51



TABLE No. 1—Continued.

DATE.	PATIENTS.		Total . . . . .	DISCHARGED.						Total . . . . .	EXPENDITURES.		Total . . . . .
	Remaining . .	Admitted . .		Restored. . .	Improved . .	Unimproved .	Eloped . . .	Not Insane .	Died . . .		Building and Repairs . .	Current . . .	
Oct. 10, 1875, to Oct. 10, 1876.	322	72	394	27	8	3	2	.	20	60	\$3,547 77	\$58,950 23	\$62,498 00
Oct. 10, 1876, to Oct. 31, 1877.	334	75	409	28	5	4	2	.	25	63	2,326 38	65,097 83	67,424 21
Nov. 1, 1877, to Oct. 31, 1878.	346	86	432	28	5	4	1	.	14	52	.	.	102,532 56
Nov. 1, 1878, to Oct. 31, 1879.	380	143	523	42	6	5	1	1	32	87	.	.	101,791 06
Nov. 1, 1879, to Oct. 31, 1880.	436	128	564	44	8	26	4	.	36	118	.	.	76,625 48
Nov. 1, 1880, to Oct. 31, 1881.	446	123	569	51	12	7	3	.	35	108	4,097 70	64,902 30	69,000 00
Nov. 1, 1881, to Oct. 31, 1882.	461	189	650	44	11	6	3	.	33	97	4,334 85	71,072 39	75,407 24
Nov. 1, 1882, to Oct. 31, 1883.	503	118	621	55	13	6	4	.	36	114	8,304 78	76,755 15	85,059 93
Nov. 1, 1883, to Oct. 31, 1884.	507	147	654	54	14	7	3	1	33	112	6,118 26	76,260 78	82,379 04
Nov. 1, 1884, to Oct. 31, 1885.	542	133	675	52	19	3	3	2	45	124	2,563 38	80,935 22	83,498 60
Nov. 1, 1885, to Oct. 31, 1886.	551	142	693	43	19	5	5	3	32	107	.	.	79,725 61
Nov. 1, 1886, to Oct. 31, 1887.	586	127	713	60	16	6	4	1	49	136	12,967 88	96,128 15	109,096 03
Nov. 1, 1887, to Oct. 31, 1888.	577	116	693	40	20	4	1	.	42	107	6,158 72	86,950 88	93,109 50
Nov. 1, 1888, to Oct. 31, 1889.	586	115	701	54	21	9	2	1	45	132	8,838 54	110,950 32	119,788 86
Nov. 1, 1889, to Oct. 31, 1890.	569	127	696	45	27	8	3	3	42	128	9,384 74	81,743 61	91,092 35
Nov. 1, 1890, to Oct. 31, 1891.	568	162	730	61	37	10	4	3	35	150	7,924 91	72,117 99	80,042 90
Nov. 1, 1891, to Oct. 31, 1892.	580	170	750	60	43	11	1	3	41	159	6,184 74	76,226 73	82,411 47
Nov. 1, 1892, to Oct. 31, 1893.	691	160	751	43	33	6	3	.	38	126	7,744 40	76,640 55	84,384 95
Nov. 1, 1893, to Sept. 30, 1894.	625	124	749	42	40	5	3	1	25	116	7,409 64	76,861 92	84,271 56
Oct. 1, 1894, to Sept. 30, 1895.	633	147	780	50	40	8	2	2	37	139	10,017 56	87,143 86	97,161 42
Oct. 1, 1895 . . . . .	641	.	.	.	.	.	.	.	.	.	.	.	.
Total . . . . .	.	4,100	.	1,494	525	210	86	21	1,123	3,459	\$240,661 65	\$1,740,311 40	\$2,585,329 44



TABLE No. 2.

Showing Movement of Population from Sept. 30, 1894, to Nov. 1, 1895.

	Male . . .	Female . .	Total . . .
Patients remaining September 30, 1894 . . . . .	339	294	633
Admitted since . . . . .	77	70	147
Total patients under treatment . . . . .	416	364	780
Total discharged . . . . .	73	66	139
Patients remaining November 1, 1895 . . . . .	643	298	641
Patients discharged as restored . . . . .	26	24	50
Patients discharged as improved . . . . .	20	20	40
Patients discharged as unimproved . . . . .	2	6	8
Patients eloped . . . . .	2	...	2
Patients discharged as not insane . . . . .	2	...	2
Patients died . . . . .	21	16	37
Total discharged and died . . . . .	73	66	139
<hr/>			
Percentage of deaths of whole number treated . . . . .			4.74
Percentage of recoveries of patients admitted . . . . .			34.
Average number present throughout the year . . . . .			635.6
<hr/>			
Total expenditures . . . . .			\$97,161 42
Cost per capita . . . . .			152 86
<hr/>			
Amounts appropriated by the General Assembly, per capita, per annum, for the maintenance of the insane in the Asylums of Kentucky since 1865:			
Up to April 1, 1880 . . . . .			\$200 00
From April 1, 1880, to April 1, 1886 . . . . .			65 00
From April 1, 1886, to April 1, 1890 . . . . .			150 00
From April 1, 1890, to March 12, 1 94 . . . . .			135 00
Since March 12, 1894 . . . . .			150 00

TABLE No. 3.

Showing Ages of Patients Admitted During the Year.

	Males . . .	Females . .	Total . . .
From 10 to 15 years . . . . .	1	. . .	1
From 15 to 20 years . . . . .	7	9	16
From 20 to 30 years . . . . .	27	19	46
From 30 to 40 years . . . . .	17	15	32
From 40 to 50 years . . . . .	11	12	23
From 50 to 60 years . . . . .	7	10	17
From 60 to 70 years . . . . .	8	3	11
Unknown . . . . .	1	. . .	1
Total . . . . .	79	68	147

TABLE No. 4.

Showing Civil Condition of Patients Admitted.

	Males . . .	Females . .	Total . . .
Married . . . . .	31	21	52
Single . . . . .	39	24	63
Widowed . . . . .	5	18	23
Divorced . . . . .	. . .	1	1
Separated . . . . .	2	4	6
Unknown . . . . .	2	. . .	2
Total . . . . .	79	68	147

**TABLE No. 5.**  
**Showing Nativity of Patients Admitted.**

	Males . .	Females .	Total . .
Kentucky . . . . .	59	58	117
Tennessee . . . . .	13	4	17
North Carolina . . . . .	1	1	1
Missouri . . . . .	1	1	1
Indiana . . . . .	1	1	1
Georgia . . . . .	1	1	1
Illinois . . . . .	1	1	1
Louisiana . . . . .	1	1	1
Alabama . . . . .	1	1	1
Pennsylvania . . . . .	1	1	1
Germany . . . . .	1	1	1
Poland . . . . .	1	2	2
Unknown . . . . .	2	1	2
Total . . . . .	79	68	147

**TABLE No. 6.**  
**Showing Occupation of Patients Admitted.**

	Males . .	Females .	Total . .
Farmers, wives, widows, daughters and sons . . . . .	47	42	89
Farm laborers . . . . .	16	1	16
Day laborers . . . . .	1	1	1
Cooks . . . . .	1	2	3
Domestics . . . . .	1	6	6
Mechanics' wife and daughter . . . . .	2	2	4
Blacksmith's wife and daughter . . . . .	1	3	3
Teamster . . . . .	1	1	1
Engineer's daughter . . . . .	1	1	1
Machinist . . . . .	1	1	1
Lumberman . . . . .	1	1	1
Barber . . . . .	1	1	1
Hostler . . . . .	1	1	1
Porter . . . . .	1	1	1
Laundress . . . . .	1	2	2
Auctioneer's daughter . . . . .	1	1	1
Clerk . . . . .	1	1	1
Lawyer's daughter . . . . .	1	1	1
Merchant's wife and daughter . . . . .	1	2	3
Seamstress . . . . .	1	1	1
Druggist and wife . . . . .	1	1	2
Minister's wife . . . . .	1	1	1
Corn doctor . . . . .	1	1	1
None . . . . .	1	3	4
Unknown . . . . .	1	1	1
Total . . . . .	79	68	147

TABLE No. 7.

Showing Form of Insanity of Patients Admitted.

	Males . . .	Females . .	Total . . .
Acute mania . . . . .	29	37	66
Acute melancholia . . . . .	21	13	34
Acute dementia . . . . .	8	4	12
Epileptic mania . . . . .	4	2	6
Chronic mania . . . . .	8	7	15
Chronic melancholia . . . . .	1	2	3
Chronic dementia . . . . .	2	3	5
General paresis . . . . .	1	...	1
Paranoia . . . . .	3	...	3
Not insane . . . . .	2	...	2
Total . . . . .	79	68	147

TABLE No. 8.

Showing Duration of Insanity of Patients Admitted.

	Males . . .	Females . .	Total . . .
Under three months . . . . .	29	28	67
From three to six months . . . . .	13	17	30
From six to twelve months . . . . .	5	7	12
From one to two years . . . . .	4	2	6
Over two years . . . . .	13	11	24
Unknown . . . . .	3	3	6
Not insane . . . . .	2	...	2
Total . . . . .	79	68	147

TABLE No. 9.

Showing Patients who have had Previous Attacks of Insanity.

	Males . . .	Females . .	Total . . .
None . . . . .	37	33	70
One . . . . .	16	10	26
Two . . . . .	5	2	7
Three . . . . .	3	4	7
Four . . . . .	..	5	5
Five . . . . .	..	1	1
Six or more. . . . .	1	3	4
Unknown . . . . .	17	10	27
Total. . . . .	79	68	147

TABLE No. 10.

Showing Homicidal or Suicidal Patients Admitted.

	Males . . .	Females . .	Total . . .
Homicidal . . . . .	33	10	43
Suicidal . . . . .	7	7	14
Both . . . . .	7	6	13
Total . . . . .	47	23	70



TABLE No. 11.

Showing Causes of Insanity of Patients Admitted.

	Males . . .	Females . .	Total . . .
Heredity . . . . .	18	23	41
Intemperance . . . . .	11	..	11
Intemperate father. . . . .	2	5	7
Epilepsy . . . . .	4	2	6
Grief . . . . .	2	7	9
Ill health. . . . .	1	5	6
Anxiety or worry . . . . .	2	3	5
Insolation. . . . .	4	..	4
Religious excitement. . . . .	3	2	5
Rheumatism . . . . .	2	..	2
Typhoid fever. . . . .	2	..	2
Cerebro-spinal meningitis . . . . .	1	2	3
Fright or shock . . . . .	1	1	2
Traumatism. . . . .	1	1	2
Domestic trouble . . . . .	..	2	2
Poverty and hardship . . . . .	..	1	1
Loss of sleep and anxiety. . . . .	1	1	2
Overwork. . . . .	2	..	2
Childbirth . . . . .	..	2	2
Measles . . . . .	1	..	1
Disappointed ambition . . . . .	..	1	1
Intermarriage of ancestors . . . . .	1	..	1
Marriage . . . . .	..	1	1
Fever in childhood . . . . .	..	1	1
Seduction . . . . .	..	1	1
Unknown . . . . .	18	7	25
Not insane . . . . .	2	..	2
Total. . . . .	79	68	147

**TABLE No. 12.**  
**Showing Cause of Death.**

	Males . . .	Females . .	Total . . .
Pulmonary Tuberculosis . . . . .	5	8	13
Cerebral Effusion . . . . .	3	..	3
Cerebral Apoplexy . . . . .	2	..	2
General Paresis . . . . .	2	..	2
Chronic Diarrhoea . . . . .	2	..	2
Heart Disease . . . . .	2	..	2
Suicide . . . . .	2	..	2
Chronic Dementia . . . . .	1	..	1
Cholesteræmia . . . . .	..	1	1
Cerebral Softening . . . . .	..	1	1
Chronic Gastritis . . . . .	..	1	1
Old Age and Diarrhoea . . . . .	..	1	1
Meningitis . . . . .	1	..	1
Senility and Acute Rheumatism . . . . .	1	..	1
Heart Failure . . . . .	..	1	1
Typhomania . . . . .	..	1	1
Status Epilepticus . . . . .	..	1	1
Senility . . . . .	..	1	1
Total . . . . .	21	16	37

**TABLE No. 13.**  
**Showing Admissions by Months.**

	Males . . .	Females . .	Total . . .
October . . . . .	2	7	9
November . . . . .	5	5	10
December . . . . .	6	4	10
January . . . . .	9	5	14
February . . . . .	7	3	10
March . . . . .	3	3	6
April . . . . .	8	4	12
May . . . . .	12	4	16
June . . . . .	5	10	15
July . . . . .	8	5	13
August . . . . .	6	10	16
September . . . . .	8	8	16
Total . . . . .	79	68	147

# TREASURER'S REPORT.

## Statement of the Receipts and Expenditures of the Western Kentucky Asylum for the Insane for Twelve Months, Ended September 30, 1895.

### RECEIPTS.

	Balance on hand October 1, 1894 . . . . .	\$276 66
Nov. 20.	Paid by Auditor of Kentucky quarterly allowance for July, August and September. . . . .	22,455 75
Dec. 8.	Cash borrowed to pay current expenses . . . . .	1,483 36
Feb. 8.	Borrowed on our quarterly allowance for October, November and December. . . . .	20,587 06
April 8.	Borrowed on our quarterly allowance for January, February and March . . . . .	21,609 66
July '15.	Borrowed on our quarterly allowance for April, May and June. . . . .	22,000 00
July 29.	Balance on our quarterly allowance due January 1, after paying amount borrowed on same . . . . .	1,028 95
	Cash collected on pay patients' board . . . . .	5,236 29
	Paid by Steward for hides and tallow sold . . . \$1,643 62	
	Paid by Steward for hogs and cattle sold . . . . .	76 65
	Paid by Steward for brick sold . . . . .	580 00
	Paid by Steward for old lumber sold . . . . .	36,60
	Paid by Steward for board of sundry persons . . . . .	127 82
	Paid by Steward for pasturing horse, etc. . . . .	19 00
		<hr/> 2,483 69
		<hr/> \$97,161 42

### EXPENDITURES.

	Warrants paid in October, 1894 . . . . .	\$6,85
	Warrants paid in November, 1894 . . . . .	10,993 25
	Warrants paid in December, 1894. . . . .	7,966 48
	Warrants paid in January, 1895 . . . . .	7,211 23
	Warrants paid in February, 1895 . . . . .	15,464 50
	Warrants paid in April, 1895. . . . .	23,066 02
	Warrants paid in July, 1895 . . . . .	24,723 68
	Balance on hand October 1, 1895 . . . . .	883,82
		<hr/> \$97,161 42

Respectfully submitted,

KINSMORE, KY., Oct. 1, 1895.

W. T. TANDY, *Treasurer.*

# STEWARDS' REPORT

For the Year Ending September 30th, 1895.

Salaries . . . . .	\$6,949 56
Wages . . . . .	21,982 94
Breadstuff . . . . .	3,875 92
Building and repairs . . . . .	8,833 74
Books, stationery and printing . . . . .	298 13
Board refunded . . . . .	312 10
Clothing . . . . .	3,144 37
Drugs and medicines . . . . .	956 81
Dry goods . . . . .	3,055 16
Expense on live stock . . . . .	2,918 58
Fruits and vegetables . . . . .	505 40
Fuel . . . . .	5,381 69
Furniture, household and kitchen . . . . .	769 88
Freight and expenses on general merchandise and supplies . . . . .	952 27
Funeral expenses . . . . .	62 00
Farm expenses . . . . .	58 70
Groceries . . . . .	12,038 26
Ice . . . . .	563 85
Lights . . . . .	62 72
Laundry . . . . .	156 03
Labor not included in pay roll . . . . .	966 64
Milk . . . . .	657 00
Meats, including fowls, fish and game . . . . .	14,420 81
Postage, telegraph and telephone . . . . .	398 70
Spiritous liquors . . . . .	414 68
Soap . . . . .	78 89
Seeds . . . . .	479 62
Traveling expenses . . . . .	210 33
Vehicles, tools and implements for farm and garden . . . . .	263 05
Amusements . . . . .	225 00
Butter and eggs . . . . .	4,109 05
Chapel services . . . . .	240 00
Lawyer's fee . . . . .	53 00
Spectacles . . . . .	56 00
Tobacco . . . . .	170 07
Interest paid City Bank . . . . .	620 90
Land for water-works . . . . .	300 00
Total expenses for which warrants are issued . . . . .	\$96,541 85
Proceeds of farm and garden for which no warrants are issued . . . . .	8,482 25
Grand total . . . . .	\$105,024 10

J. C. BUCKNER, *Steward.*





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